

MANUAL

Nº 12


How  
to

Sell

PENCILS

THIS REPORT was compiled and published by the National Stationery and Office Equipment Association to assist the stationer salesman in discovering and satisfying the wood-cased pencil, eraser, and pencil sharpener needs of his customers.

The ideas and information were collected through the cooperation of member manufacturers, member stationers, and their successful salesmen.



Illustrations of products were furnished by member manufacturers. The selection of illustrations in every instance was based on their adaptability to the text material, and constitutes no particular brand endorsement by this Association.



# HOW TO SELL **PENCILS**



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**NATIONAL STATIONERY**

**AND OFFICE EQUIPMENT**

**ASSOCIATION**

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# The Magnificent Stick

Business today begins with the pencil. It is man's first tool, for with it he makes the plans which precede his accomplishments. From the humble beginning of a pencil mark on a scratch pad, a hastily-written memo, or a sketch on the drawing board comes the most complex machines in this atomic age of ours. Throughout the development and marketing of any product or service, the pencil records the intelligence of the planners, the craftsmen, the distributors and the accountants. Yes, the simple pencil is first and always, THE tool of modern man.

Man progressed with his writing instruments from fingers to sticks, to lumps of colored earth and chalk. Besides their brushes and reeds, the ancient Egyptians and Greeks used metallic lead and silver for making light marks. Later, the Romans used a small lead disc for ruling guide lines, calling it a "plumbum," which is Latin for "lead." Our word, "pencil," comes from the tiny brush the Romans used to write their symbols on papyrus and which they called "penicillus," meaning, "little tail."



## Man Writes His Message

Down through the ages, man has recorded his deeds and his desires. Sticks and clay, hammer and stone, reed and papyrus, styli and wax, were used by primitive cave men, Egyptian priests, and the Monks to record the happenings of the centuries. On such records of the past has been built our civilization of today.

The lead pencil began with thin rods of metallic lead or silver used for making a light mark. We have drawings from the 14th Century called "silver point" made with such a pencil. The earliest written description of a true lead pencil we have knowledge of, came from Conrad Gesner of Zurich in 1565 when he got off the subject of fossils temporarily to describe a writing rod held in an ornate wooden shaft.

## That Old Black Magic

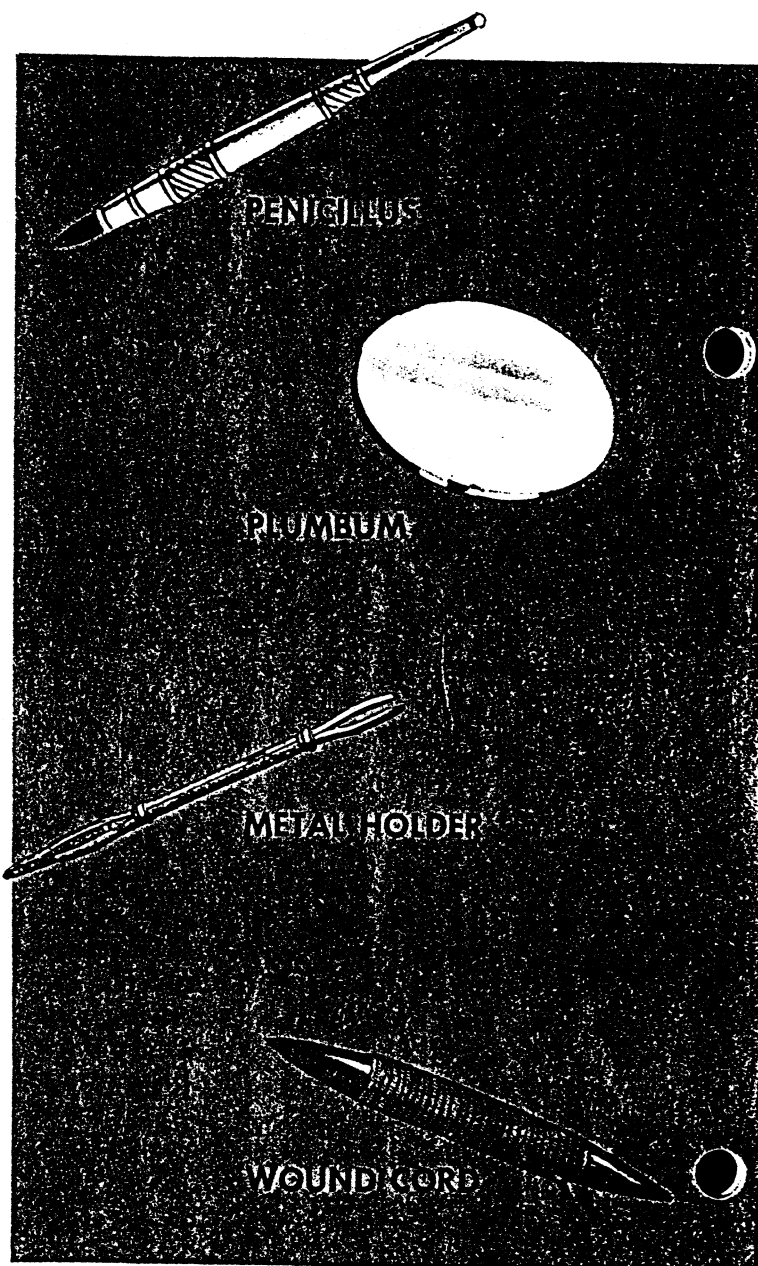
During the reign of Queen Elizabeth, in 1554 to be exact, a discovery was made in Barrowdale, England, which was to spell the doom of the true lead pencil. Here a deposit of what we now know as graphite, was found in a form so pure and solid that it could be used for writing. The material was given the name, "plumbago," which means, "that which acts like lead." When it was later proved to be a form of carbon rather than lead, it was given the name, "graphite," from the Greek word meaning "to write."

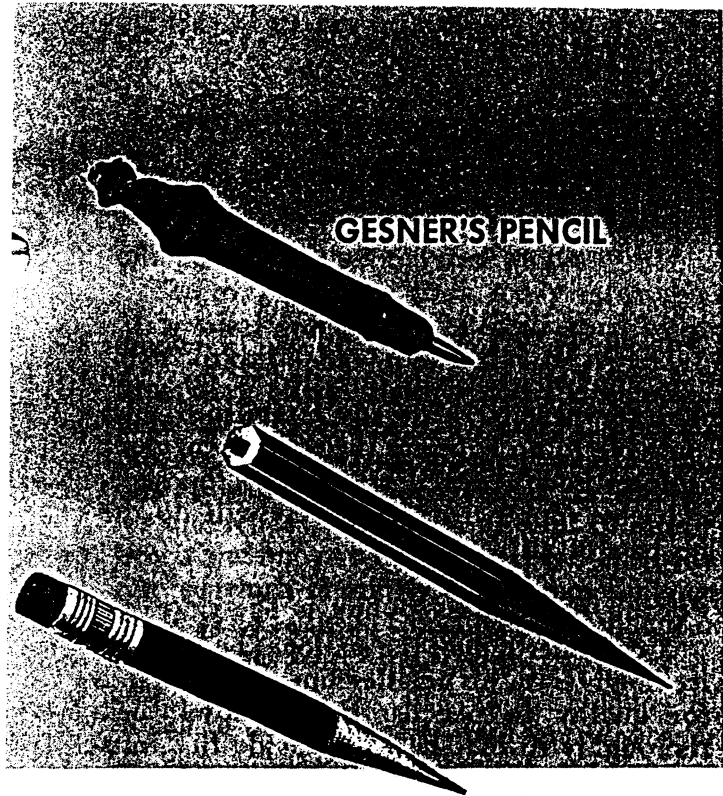
Hawkers walked from door to door through the streets of London during the reign of James I, selling markers of black graphite. We have a record of the sales cry of one of them:

*"Buy marking stones, marking stones buy,  
Much profit in their use doth lie;  
I've marking stones of colors red,  
Passing good, — or else black lead."*



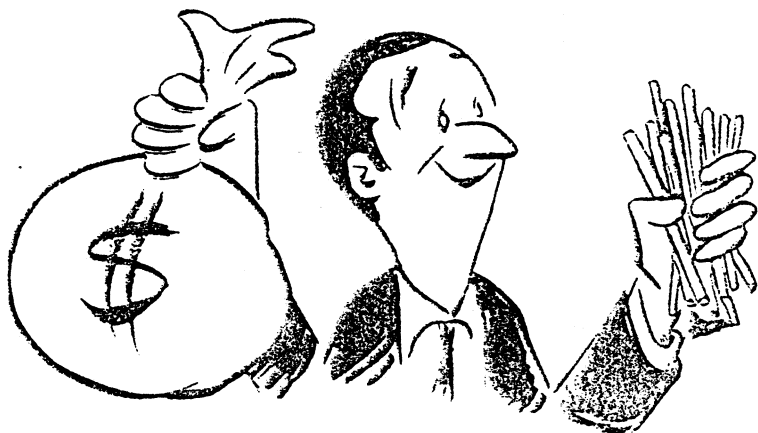
The Barrowdale deposit was the purest ever found, and for awhile, England enjoyed a world monopoly. The mine was operated only six weeks a year, and the cargo was so valuable that armed guards were required to escort the wagons to London. At first, the graphite was used in a rough chunk, then in sticks wrapped with string to protect the fingers. The string was unwound as the graphite wore down. Graphite pieces were also pushed into quills, into tubes, or held in metal holders called "port-crayons." Toward the latter part of the 18th Century, slim squares of graphite were glued between two strips of wood and the modern pencil form was born.





## The Stationer's Friend

Pencils are one of the oldest staple lines sold by the stationer. They are often called the "bread and butter" line for the stationer because their sales are fairly dependable. The average industrial stationer, the one who has outside salesmen contacting industrial users of pencils, can count on about 5% of his total sales coming from pencils. This is an important segment of his business!



By the 17th Century, England began to get competition from the Germans who had to be content with using graphite of much less purity. The graphite was crushed and refined and mixed with a variety of experimental binders to process the powdered graphite into lead. When the Barrowdale mines were exhausted, the pencil production leadership switched to Germany. About the middle of the 18th Century, pencils were produced in the form in which we know them today.

### Tried by fire

In 1795, Napoleon, cut off from the English and Germans, commissioned Nicholas Conte, an artist, chemist, and mechanical genius, to develop a substitute for imported pencils. Conte succeeded in developing a process which forms the basis for present-day methods when he mixed powdered graphite, clay and waxes and fired them like china in a kiln. His new method spread abroad and was soon adopted generally because of the superior writing lead which it produced.

Until well into the 19th Century, America had to depend upon pencils from Europe. Although an unknown schoolgirl made the first pencils in America by crushing English graphite and stuffing it into a hollowed-out alder twig, the first pencils sold in any quantity were made by William Monroe of Concord, Massachusetts in 1812. The United States now surpasses the rest of the world in pencil production.

Pencils are used everywhere by almost everyone. Ten pencils are used every year for every person in the United States! Your customers, of course, because the pencil is a principal tool for them, will use much more than the national average.

### A Barometer of Business

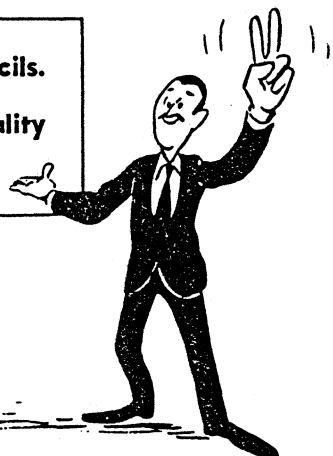
The sale of pencils is one of the most sensitive barometers of business conditions. By watching their sales, pencil manufacturers can predict a rising or falling trend in the business of all industries with reasonable accuracy. This is possible because of the close association of the pencil to the men and women who keep industry on the move.

### A Staple Commodity

The pencil is used by every type of business, a fact which offers both a selling advantage and a disadvantage. We are happy to sell a product which enjoys a universal market and has an established demand. Unfortunately, however, the pencil is so common that the average user thinks of it like he does flour, sugar or salt. He is not aware of the many qualities and formulas available to make his writing job better and easier to perform.

This may sound too simple, but there are only two ways to increase your profits, or to maintain them in the face of increased expense:

1. Sell more pencils.
2. Sell higher-quality pencils.



Your store, of course, will try to purchase your pencil stock at the most advantageous prices with full consideration for quality, reasonable stock quantities, and consumer brand preference. As with other types of merchandise, your store can buy pencils in a range of prices which reflects their quality and customer usefulness. In the long run, however, the stationer finds that the most satisfactory stock is the quality lines which keep the customer satisfied.

### Get ALL the Business!

Pencils will pay their way for the stationer who does little more than ring up the cash register for the customer who selects his own pencils from a counter display. But the REAL pencil sales—and profits—go to the stationers who concentrate on the industrial trade and try to fit the right pencil to each of the specific requirements of the business customer.



Pencils are easy to sell—IF you know your lines and what each is intended to do. The need for pencils is already established. All you have to do is locate the need, show your prospect how a pencil will satisfy the need, and why your particular pencil will do the job best of all!

### Pardon, your sales policy is showing

A customer judges the stationer by the service he gives on his smaller lines. If he stands for quality in pencils, if he knows them thoroughly so that he can provide full satisfaction, the customer will assume that he stands for quality in his other merchandise and will give just as complete service throughout his line. The chances are good that if you can establish customer confidence in your pencil recommendations, the same customer will have confidence in your recommendations for the other supplies and equipment he needs for his office.

There are no tricks, in the long run, for developing PROFITABLE volume sales in pencils. It is simply a matter of selling the best pencil for a given job, establishing in the customer's mind the advantages in using a quality pencil, and convincing the customer that your pencil has the quality he should have.

### Sell the Better Quality

Strive to make your pencil sales permanent. Convince the customer on the quality and superiority of your pencils during the first sale, then your competition will have to show superior quality before he can take the customer away from you. When the pencil is permanently sold, you can spend more time during your regular calls in selling your other lines.

Here are some facts you can bring out in your sales presentation that emphasize the value of a quality pencil in keeping down the costs of running a business firm.

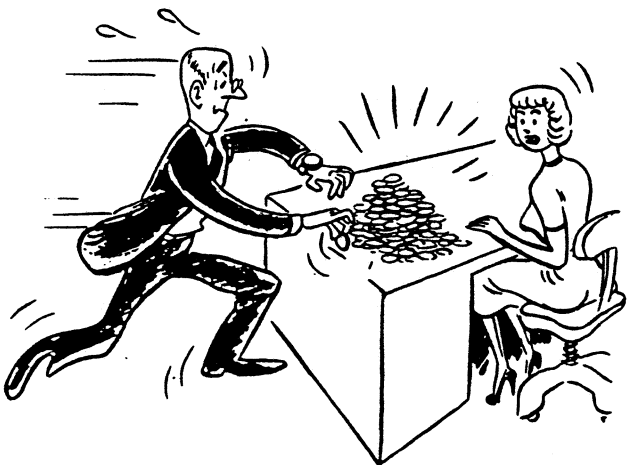
## A Cheap Pencil Is Too Expensive

A poor pencil may cost 3 to 4 times the price of a good one in wasted time alone.

The average office clerk today earns about 2¢ a minute in wages. Pencils used by the clerical employees cost between 4¢ and 8¢, depending on the quality and the quantities purchased. One can see that extra sharpenings due to broken leads, uneven wearing, and other causes in an inferior pencil, can soon pay the difference between the price of an inferior pencil and one of a higher quality. The better results which naturally come from a higher-grade pencil can be considered as a bonus on the investment.

## Better quality costs less

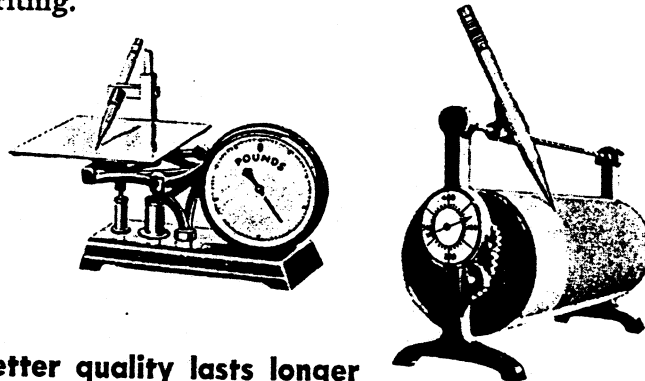
If the boss had to drop a penny on the desk of every clerk every thirty seconds, he would soon realize that a higher quality pencil which can save even a few minutes during its lifetime, actually costs much less than the cheapest pencil he can buy!



Breaking a pencil point breaks the operator's train of thought. Even if he doesn't sharpen the pencil and merely picks up another one, the time he loses in getting back to productive thinking may cost more than the best pencil his firm could buy for him.

## Better quality saves time

The higher quality of lead in the better pencil also saves time for the employer. For the small additional price he gets for the pencil, a manufacturer can afford to buy better grades of graphite and clay and to spend a longer period in refining them. With the smoother lead that results, time is saved all during the life of the pencil because the smooth lead speeds the hand and maintains an even, uninterrupted line that eliminates re-writing.

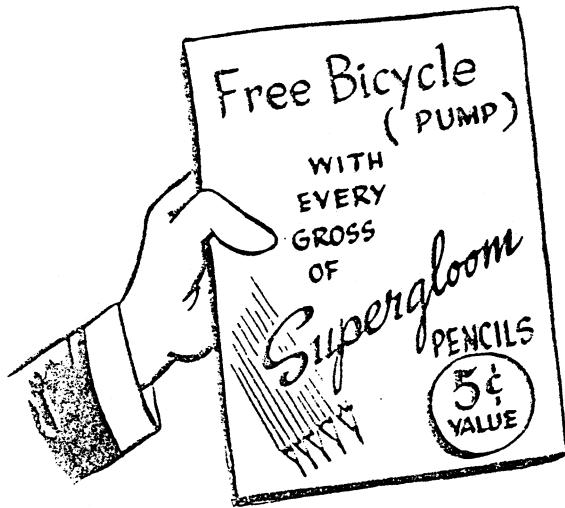


## Better quality lasts longer

The same processes which make better writing quality also make the quality pencil last longer than an inferior one. Because of the extra refining processes, more graphite can be pressed into a square inch of quality lead than in a poorer one. To get a line of the same density with a lead of a given hardness, the better lead requires less hand pressure and therefore results in less wear. If you should ever give two pencils a mileage test, incidentally, be sure to select two of comparable lead hardness, for the softer grade of lead will naturally wear away faster than a harder one, even in the same brands.

## Meeting Mail Order Competition

Pencils are a favorite item in the mail order selling picture. Don't allow your customers to be fooled, however, by the advertising which offers a gross of pencils and a special premium. If your customer should insist on using the lower grade of pencil sold through such offers, you could furnish a similar pencil at a lower price than that advertised through the mails and the customer could pocket the difference in cash or buy a premium of his own choice with the saving. The statement commonly made in such advertising, "A 5¢ Value," has little meaning, because the advertiser has the right to give his own opinion on its value.

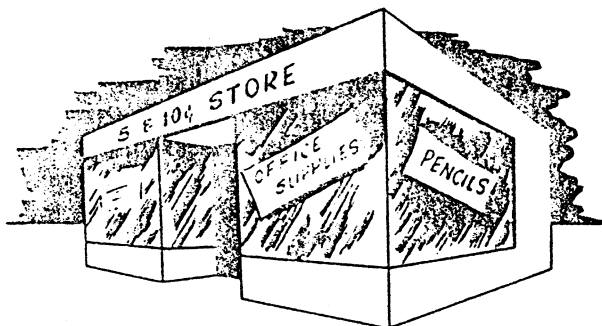


Imprinting at an additional charge is commonly offered with the mail order pencil. The additional charge is usually high enough to increase the total profit handsomely. Your manufacturer will furnish imprinting, too, if your customer desires.

The best form of attack against the mail order competition is to convince your customer on the value of a better quality pencil. Sell your customers on the value of sticking with a uniformly superior quality pencil made by a reliable manufacturer.

### Meeting Chain Store Competition

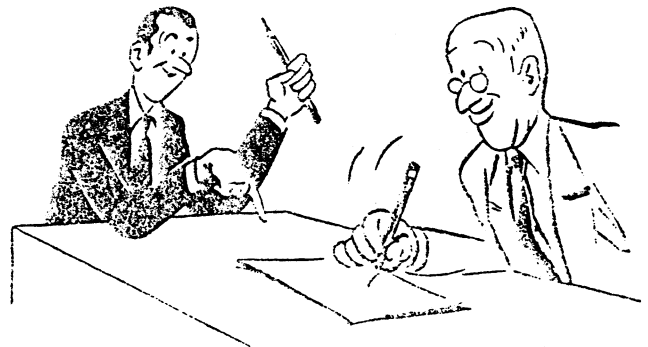
The chain, variety-type stores are geared to sell through mass display for impulse buying in a high store-traffic area. Although some of these stores do carry the standard pencil brands, they lean toward the pencils in the jobber and school grades. Unless the stationer is in a high store traffic area himself, he is happy to let the variety store have this part of the market. The average stationer concentrates on the industrial market where the sales are measured in gross quantities rather than single units.



Unfortunately, some of the chain store pencil sales are being made to office employees who drop in during the noon hour. This business should be going to the stationer who has salesmen calling on the offices represented. Variety stores charge the same price regardless of the quantity purchased, so the stationer can undersell them on the quantities usually purchased by the average business office. The price per pencil is usually comparable in both the stationery and variety store for comparable quality, but the stationer has found that the higher quality lines fit into his selling plan more satisfactorily.

### Take a lesson, please

If the stationer does wish to compete with the variety stores, he can take a lesson from their mass displays to increase sales volume. Obviously, the salesman cannot spend too much time selling a single 6¢ pencil if the sale is to be a profitable one. Mass displays are designed for self-service and are commonly placed near the cash register. Manufacturers of pencils will give assistance in setting up such displays.



Taking time to sell a pencil properly IS important where industrial pencil accounts are involved, for here is where you have the edge on your variety store neighbors. Proper selling, too, is important when the customer may be influenced by your helpfulness in selling the right pencil to become a good customer for the other supplies and equipment you carry.



# PENCIL MARKET CHECKLIST

In addition to the general writing pencils used by everyone, here are some prospects for the special types of pencils that increase sales—and profits.

## EXECUTIVE

- Best general writing or drawing pencil
- Colored, for coded signatures, graphs

## STENOGRAPHIC

- Special shorthand pencil
- Colored, for corrections
- Telephone

## CLERICAL

- Intense copying, for duplicators
- Manifold, for extra copy work
- Telephone

## ACCOUNTING

- High quality, harder leads for fine figuring
- Colored, for coding account records, charts and graphs
- Copying, for legal signatures, carbon copy work
- Conductive, for IBM questionnaire scoring

## ENGINEERING

- Drawing pencils
- Colored, for coded drawings and illustrations
- Blueprint, for correcting and checking prints of all types

## PRODUCTION

- Colored and Blueprint, for checking prints and records
- China-marking, for smooth surface marking
- Lumber crayons, for marking rough surfaces
- Moisture resistant, for charts and records

## ADVERTISING

- Drawing and other art supplies
- Heavy lead, for layout and editing copy
- Colored, for art, graphs, code checking

## SALES

- Colored, for charts, graphs, checking, coding records
- Manifold, for order books, carbon copies

## SHIPPING

- Moisture resistant, for shipping tags and labels
- China-marking, for smooth surfaces
- Manifold, order book, or copying for making carbon copies
- Colored, for checking and coding

## HOME

- Drawing and art supplies
- Telephone
- Program
- Scoring
- Pocketbook

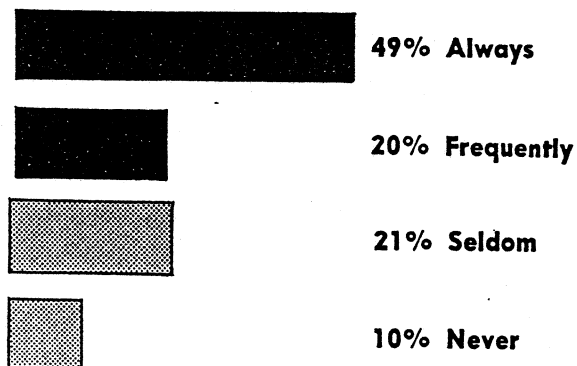
## SCHOOL

- Large diameter, soft lead for elementary grades
- Shorthand, for business classes
- Drawing, and other art supplies
- Colored, for art, checking, coding records, graphs
- Intense copying, for duplication work
- Crayons

## Take Advantage of Manufacturer's Advertising

Pencil manufacturers spend considerable money in advertising to familiarize the buying public with their brand names. This advertising is designed to create customer acceptance. Acceptance is not enough, however, and salesmanship is required to convert acceptance into demand.

One member manufacturer asked 247 industrial users, "How often do you specify a particular brand of pencil?" Here are the replies:



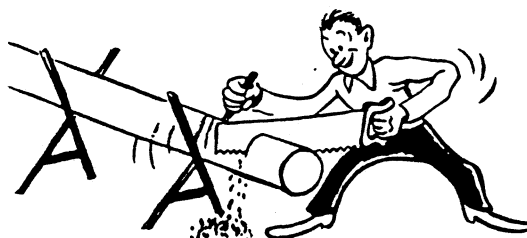
You can see that 69% of those replying, always or frequently specified the pencil brand they wanted. Take full advantage of the acceptance which advertising creates!



Manufacturers provide for both national and local advertising. They make mats available to a dealer which allow him to add his store identification and tie-in with the national advertising. A wide variety of sales aids are also furnished, including demonstration kits, folders, catalog inserts, blotters, films, slides, radio scripts, and house organs. Although their primary use is directed toward the customer, study these aids for ideas which will make your own presentation more forceful.

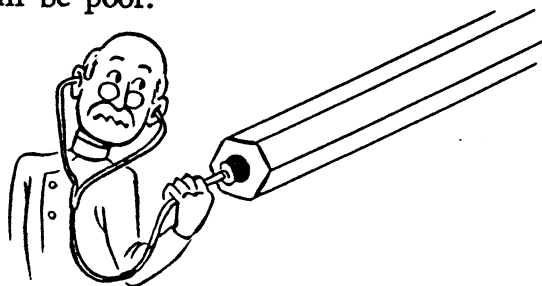
## HOW TO MAKE A PENCIL

If you would like to save 6¢ the next time you need a pencil, here is how you can make one of your own.



### Lead takes the lead

We might consider the pencil as having two basic parts, a body and a heart. At the heart we have the service element, the real reason for the pencil, the lead. The pencil may have a strong and beautiful body, but if the heart is poor, the quality of work that it will perform will be poor.



The marking element of the lead, and the principal ingredient, is graphite. From Ceylon and Madagascar comes crystalline, silvery, flake graphite of high quality. From Mexico comes the amorphous graphite, soft, powdery, but intensely black. The best quality graphite of these two types are reserved for blending into the better grades of pencils. Lower grades of graphite from other parts of the world go into paint, polish, lubricants, and foundry crucibles.

The graphite is selected and refined to give the finest particles possible in the quality leads. The finer the particles, the smoother and easier the pencil will write, and the better the line will be in appearance. Manufacturers vie with one another in their methods and equipment to produce graphite particles as fine as possible.

Fine clay, commonly from Bavaria, is mixed with the graphite to act as a binder and to add strength. The better clays are used in the higher quality leads to keep them free from metallic and gritty particles which scratch the surface and produce uneven lines.

## Taking it by degrees

The proportion of graphite and clay in a particular formula is governed by the degree of hardness desired in the finished lead. The greater the proportion of clay, the harder the lead and the finer the line it will produce. As the proportion of clay is increased, the resulting line is reduced in blackness, but this is an unavoidable by-product. Manufacturers strive to produce as black a line as possible in the hardness and strength desired.

Water is added to the graphite and clay mixture and the batch is milled and mixed for days until the chemist is satisfied that the graphite and clay are thoroughly blended. After several rough pressing and reprocessing operations, the batch is ready for the finish press which extrudes continuous, spaghetti-like strings through very accurate diamond, agate or sapphire dies. Strands of the lead strings are cut off and laid out to air dry. Later they are cut into pencil lengths.

After air drying, the leads will write, but they are too soft for use. To harden them, the leads are packed into crucibles and fired at terrific heat in controlled ovens. At the extreme heat, the clay vitrifies like porcelain to form a honeycomb structure filled with tiny graphite cells. After the leads have cooled, they are immersed for a period in a bath of molten wax. The impregnated wax makes the lead write more smoothly.

Colored leads containing pigments and waxes instead of graphite are made in the same general manner except that they are not burned. They are ready for use after a sufficient air-drying period.

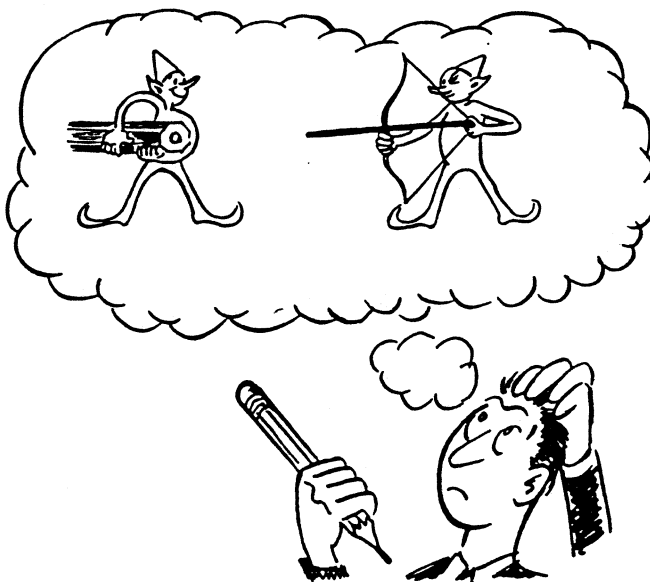
## We make a case out of it

The preferred wood used for the body of a pencil is cedar. The fragrant red cedar of the South was used almost exclusively until the supply became scarce. As the southern cedar supply dwindled, frantic pencil manufacturers bought up old log cabins, shacks, barns, and even fence posts and rails when made of cedar. Cedar was the only wood to meet all the conditions of a pencil wood satisfactorily: straight grain, relatively soft, high resistance to breaking across the grain, and receptive to a good finish.

Then, in California, an incense cedar was discovered that was suitable for pencils, and today it has almost replaced the southern cedar for pencil use.

## Get the Lead In

Like the king who wondered how the apple got into the dumpling, most of us have wondered how the lead gets into the pencil.



We might think of the pencil as a sandwich—two pieces of wood with the lead in the middle. The manufacturer gets his wood from the mills in the form of slats, about half a pencil thick; ideally, eight pencils wide; and slightly over the length of a finished pencil. The actual size of the slat, of course, depends on the final size desired in the pencil. At the mill, the slats were kiln dried, stained, and impregnated with wax. The wax improves the cutting quality and prevents the grain from raising during the finishing operations.

The manufacturer likes to use as wide a slat as possible, for in this way he can get the greatest number of rough pencils per operation. Unfortunately, areas of rot, irregular cross sections, and knots prevent all slats from being the ideal width.

The first machine operation planes and grooves the slats in parallel rows, one-half the depth of the lead to be inserted. Machine-grooving must be extremely accurate, and this operation has the reputation in the wood industry for having the closest tolerances of any wood-working operation. Any slight deviation in the grooving will throw the lead off center for later operations.

The leads are next placed in the grooved slats by hand or machine. A special adhesive

is then applied to a second slat, or to both slats, and the two are pressed firmly together to form a block. A number of blocks are then placed in a clamp and dried under pressure.

### As good as its bond

The waxes, which are added to the lead after firing to increase the writing smoothness, have long presented a problem to pencil manufacturers because they interfere with the glue bond. The wax in the lead works against the adhesive making a solid bond around the lead. The resulting lack of bond makes the point break easier where the lead emerges from the wood case. Much of the difficulty has been overcome in recent years through new developments in adhesives, special coatings on the leads before gluing, and etching processes.

After drying, a number of operations are performed on the finished blocks to shape, square, sand, and cut out the finished pencils. It is obvious that every cutting and shaping operation in the slat must be extremely accurate if the finished pencil is to be uniform and the lead is to be in the exact center. The glue seam must also be strong to keep from splitting and also to keep the lead from breaking under light pressure. The leads themselves must have been kept at a uniform size throughout the entire process so that they will fit tightly in the groove and yet not be too large so that the glue joint is impaired.

As the pencils are cut away from the slat, they have the hexagon or round shape, as desired. After cutting, they are sent through sanders which smooth all surfaces.

### Ready for a strong finish

After sanding and inspection, the pencils pass through a bath of lacquer in a series of coating machines. Each pencil is passed through the machine from three to twelve

times depending upon the quality of finish desired.

Although a pencil is designed ultimately for destruction, the finish is as fine as on any other item in every-day use. The finish must be smooth, uniform, flexible, elastic, and must have proper adhesion to the wood. It must not be abrasive or it would dull the knives and sharpeners, and the finish must not flake off or chip as the pencil is sharpened.

After the finished coat, the ends of the pencil are squared and smoothed. The pencil is then sent to the imprinting machine. The imprint is made by an electrically heated die and various colors of foils.

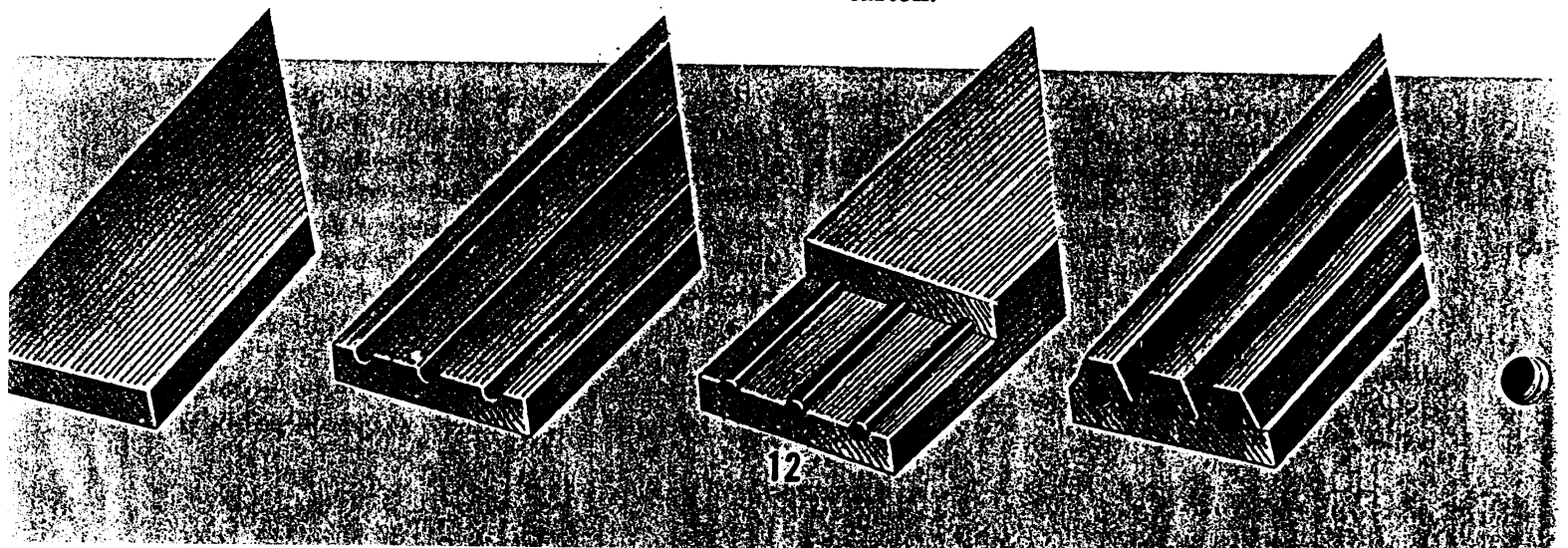
### In case of error

If the pencil is to have an eraser, it usually goes to a machine which performs all the operations in consecutive order. A shoulder is cut, a ferrule is fastened, and the eraser is forced in. Plastic ferrules are fastened with adhesive; brass ferrules are held in position by a series of prick punches which indent the metal and press the prongs into the wood. The eraser may be held in place by pricking or by adhesive.

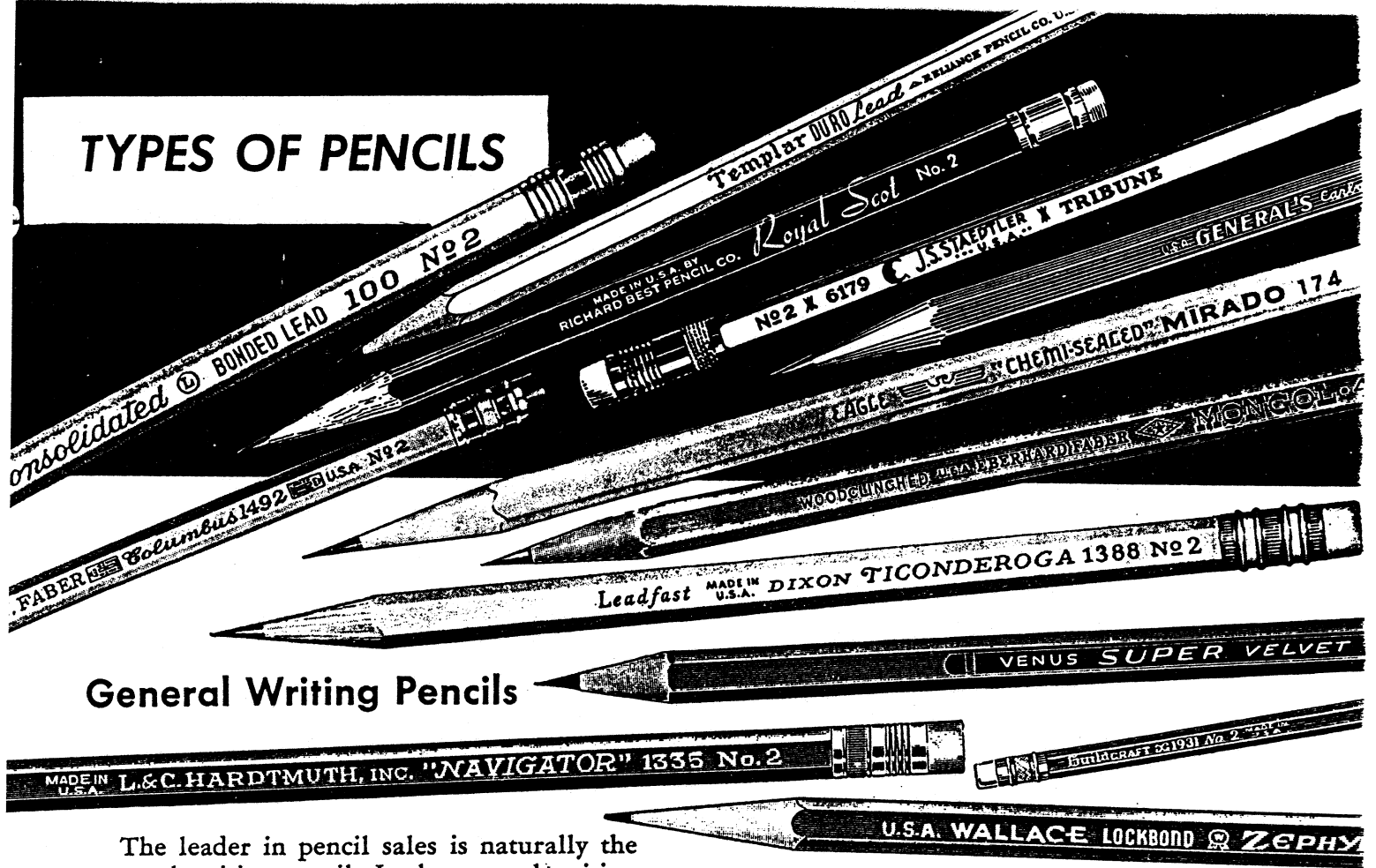
The eraser tip is a compound of rubber, cleaners, abrasive and color pigment. These ingredients are milled into a dough, extruded, vulcanized, cut, and tumbled smooth.

### And so to box

After final inspection, the pencils are packed for shipment. Although they may be packed loosely in gross or more cartons, the pencils are usually boxed by the dozen or fitted into bands or sleeves in dozen lots. Six of these packs are then put in a second box which then holds one-half gross. Various display cards are available for counter displays, usually holding a dozen pencils, six cards to a carton.



## TYPES OF PENCILS



## General Writing Pencils

The leader in pencil sales is naturally the general writing pencil. In the general writing classification you will find the entire gamut of quality from the equivalent of a drawing pencil to the lowest quality that will make a mark.

In the general writing field you will find the majority of the nationally advertised trade names that your customers will call for. Top volume sales are naturally found in this field, but so is top competition!

The answer to this competition, the profitable answer, is to be found by the salesman who sells pencils on the basis of what they will do for his customer, not on the price he can quote! Ways to emphasize the importance of using a quality pencil have been discussed previously in this manual.

There are certain lines of general writing pencils, commonly referred to as "jobbing" pencils, which are promoted principally through their eye-appeal and lower selling price. Their writing and wearing quality is generally poorer than the standard lines, but their finishes are particularly attractive in many cases. The average stationer rarely can afford to carry these lines, since they are designed to attract the cigar store and variety store type of trade, where heavier walk-in traffic is found.

## What Makes a Quality Pencil?

We have said that the pencil is such a staple product that few users realize that there is any difference between one pencil and another. If you bring them to his attention, however, he is sure to agree that these three qualities are highly desirable:

- 1. Smoothness.** A good pencil produces a line of even density with a minimum of writing pressure. This is made possible by the use of high-quality graphite, clay and waxes; by the formula; and by the care and skill given to refining the mixture.
- 2. Strength.** The point must resist breaking under normal writing conditions. The lead compounds must be thoroughly mixed to eliminate weak spots. The adhesion between the lead and the wood must be strong.
- 3. Durability.** The better quality and better-refined lead will last longer between sharpenings because it wears away evenly and without excess writing pressure.

## You Take It by Degrees

There is no standard division in the degree of lead hardness between manufacturers. Each of them will list several degrees of hardness by means of a numerical scale, usually from No. 1, soft, to No. 4, hard.

This numerical marking system is of value only when comparing the writing performances of pencils within the same line made by the same manufacturer. The No. 2 grade of pencil by one manufacturer, for example, may not give the same density of line as another No. 2 pencil made by another manufacturer. The markings will only tell you that if the No. 2 pencil does not give a sufficiently dark mark, a No. 1 in the same line will give a darker one. If the No. 2 grade does not give the clean and sharp line you desire, the harder No. 3 will probably be more to your liking.

The No. 2 hardness grade is considered the average preference. Some manufacturers make a grade between 2 and 3, giving it a letter "F" like the drawing pencil, or a number like 2-1/2, 2-5/10, or 2-3/8. They consider this grade as the true medium, just a little harder than the No. 2 and thus giving longer wear and greater point strength. Some manufacturers also provide a grade between 1 and 2, like 1-5/8, and between 3 and 4, like 3-5/10. As a rule, these special grade designations are copyrighted.

Regardless of the numerical designation, let's divide the writing strengths into four classifications, soft, medium, firm and hard. Here is how they answer the use requirements.

**Soft.** Produces a heavy, black mark. Used primarily for checking, sketching, marking, editing and other free and easy writing.

**Medium.** For general office, school and home use.

**Firm.** For fine writing and figure work, such as in accounting and bookkeeping. Good for making carbon copies, combining strength and smoothness.

**Hard.** Where sharp lines are required, as in drafting. Best when more than the usual amount of pressure is used in writing, or in making large numbers of carbon copies.

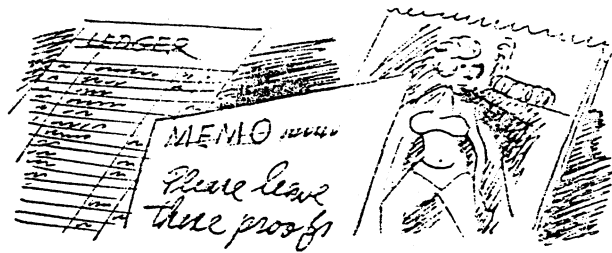
## 3 Influences on Pencil Selection

The customer should choose a grade of lead by means of three considerations:

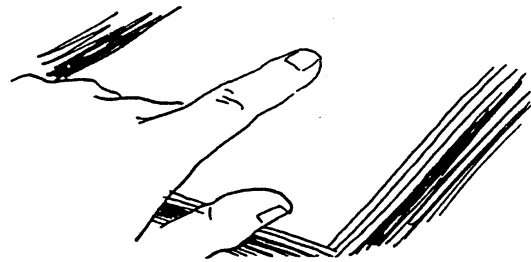
**Personal preference.** Do I like my writing bold or fine?

*like this?*  
*or like this?*

**Application.** How will I use the pencil? In bookkeeping, general writing, drawing?



**Type of Paper.** Will the paper I use have a rough, average or smooth finish?



### The pencil should match the paper

It is the abrasive quality of the paper or other surface which makes the pencil write. A glossy paper has less "tooth" and therefore offers less resistance to the pencil lead.

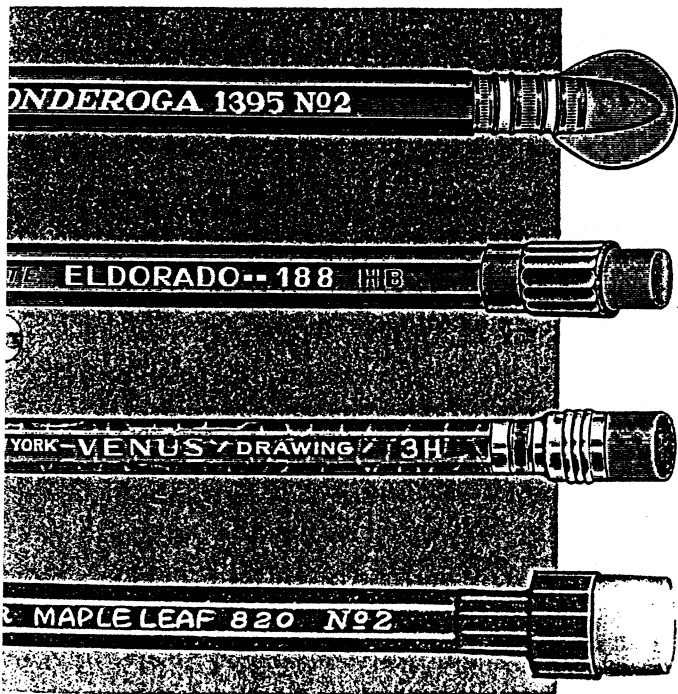
A softer lead permits the minute particles of graphite to wear off with less effort, and so makes a mark on smoother papers easier than a harder lead. Because it has a greater proportion of graphite than the harder lead, the softer lead will also make a blacker mark. The harder lead, however, will make a cleaner, sharper line than the softer lead, and so the accountant or draftsman will use the hardest lead that provides the required visibility.

Damp paper has less abrasive action than when it is dry. Humidity, therefore, might make a pencil take the blame for a poor mark when actually the paper was at fault.

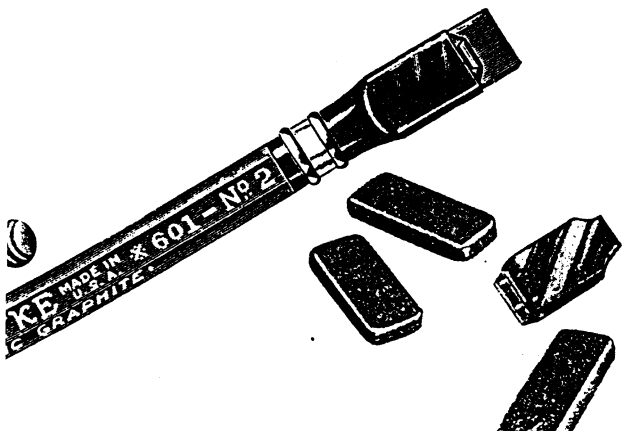
## We Anticipate Error

Like bread and butter, pencils and erasers go together. The eraser tip is an American invention which parallels the fast tempo of American paperwork. The majority of black lead pencils sold today have eraser tips, but some firms prefer untipped pencils because they discourage erasing. Examples are railroads, restaurants, express offices, route salesmen and collectors. Some draftsmen and artists, too, prefer a separate, special purpose eraser, and so drawing pencils are also available with or without eraser tips.

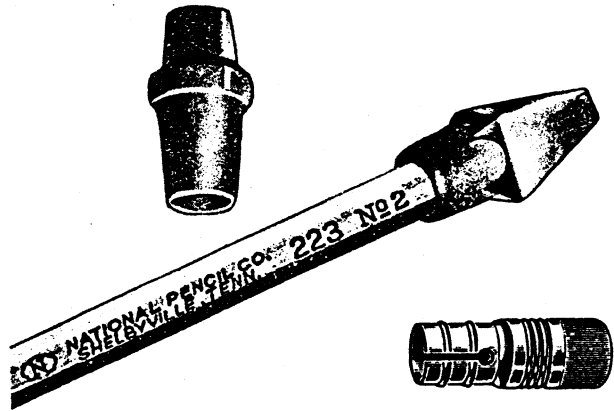
Any saving in price between tipped and untipped pencils is generally lost through the additional time an employee uses to find and use a separate eraser.



Some pencils are provided with a flat eraser in a clamp-type tip which permits adjusting the length as the eraser wears away. Refills are also available should the eraser be used up before the pencil.

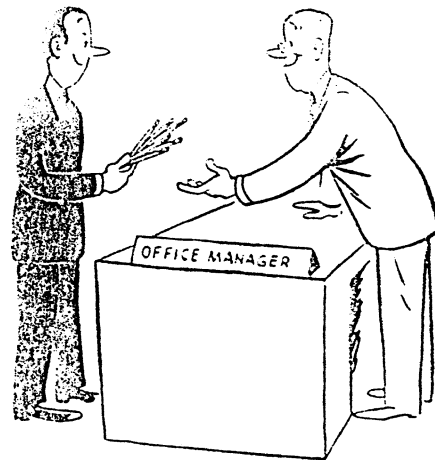


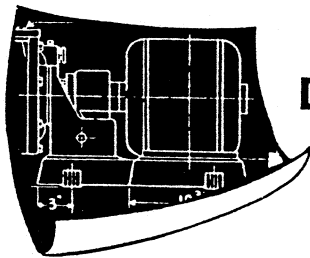
Pencil eraser heads or caps can be bought separately to renew a worn eraser or to convert an untipped pencil. Some like to put an eraser head on a new pencil because its extra size allows the use of a softer texture. Erasing is also made easier than with a standard tip.



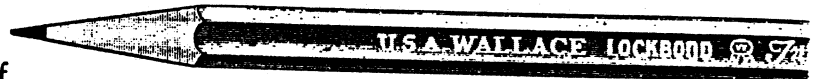
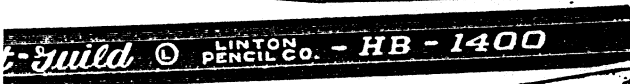
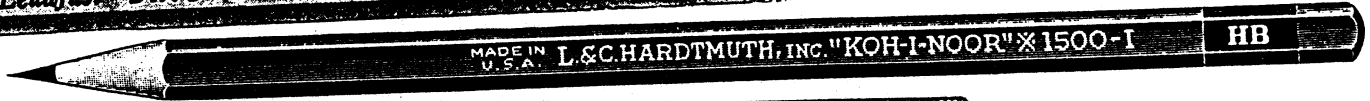
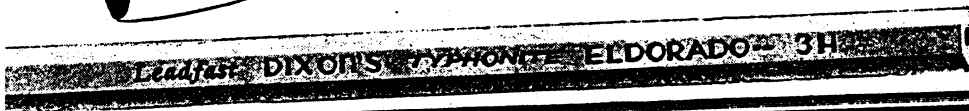
## Whom Do You See?

The office manager, chief requisition clerk or stock room clerk usually has the authority to send the requisition for general writing pencils to the purchasing agent. These are the persons you usually call on for other items in the office supply and equipment line. Be sure that you are also getting their pencil business! Offer to survey their pencil requirements and make suggestions for the pencils best suited for each requirement. Leave several samples for the top executives to try out. They should be using the best pencil available. Do the same with accountants and others whose work depends on a good pencil that produces the best results with less waste in manpower and supplies.





## Drawing Pencils



The drawing pencil is the principal tool of the draftsman. He is judged by the print which his drawing makes as well as by his original work. His pencil lines must be clean, of uniform thickness, and sharp. They must be opaque so that the printing light will not penetrate them and produce a mottled or broken line effect. Any erasures must be clean so that they do not produce ghost lines on the print.

Because the highest quality leads go into the drawing pencils, they are being used increasingly by executives, office accountants, and others who desire the finest pencil they can buy. They are especially popular with bookkeepers because of their greater durability. Drawing pencils with eraser tips are available for these users.

Drawing pencils are the elite members of the pencil clan. Into his drawing pencil line, the manufacturer puts his best ingredients and the best of his refining and manufacturing processes.

Not too long ago, the engineering and architectural drawings were first made in pencil and then retraced with pen and ink in order to make lines opaque enough to register on the blue print. Improvements in pencil formulas and reproduction processes have practically removed the necessity for ink tracings. By using the pencil original, a considerable amount of expensive labor has been saved.



### 8 Qualities of a Good Drawing Pencil

1. **Smoothness.** A satisfactory line with a minimum of writing pressure.

2. **Consistency of Grading.** The draftsman expects the 5H pencil he bought today to produce the same results as the one he bought last month.

3. **Opacity.** Uniformly black lines. No light spots.

4. **Sharpness.** No feather edges caused by unevenly distributed graphite.

5. **Durability.** A long line must have the same width at both ends.

6. **Constancy of Grading.** The same degree of difference should exist between each adjacent grade of hardness.

7. **Strong lead.** The point should not break in the middle of a line because of lead weakness or poor bonding.

8. **Erasability.** Unwanted marks must be cleanly removed to avoid ghost lines in the print.



## Who Uses What Grade?













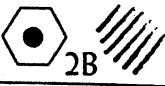

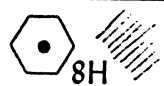

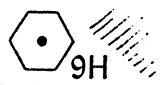
Drawing pencil leads vary in hardness to meet the exacting requirements of the types of work they are called upon to do. Manufacturers do not follow any standard hardness specifications, but each one has developed a range of hardness grades within his own line which he usually identifies by a number and letter code based on a European scale.

A manufacturer may offer as many as 18 degrees of graphitic hardness in his drawing pencils, ranging from 7B, very soft, to 9H, very hard. Additional softer grades are offered in special, non-graphitic leads. In a general way, here is how the various grades might be used:

Artists, architects, engineers, lithographers, draftsmen, photographers, designers, and similar persons will use practically all of the hardness grades at one time or another. Here are a few of the many other users for each lead hardness category:

<b>7B to 3B</b>	Editors, shipping clerks, and others desiring heavy, black marking.
<b>2B, B</b>	Stenographers, writers, stockbrokers, and others desiring slightly softer than average lead.
<b>HB, F, H</b>	For general writing use.
<b>2H, 3H</b>	Clerks, salesmen, bookkeepers, and others desiring a slightly harder lead for longer wear, sharper lines, or less point-breaking under harder than average pressure.
<b>4H to 6H</b>	Salesmen and clerks for writing large numbers of carbon copies; Accountants, bookkeepers, for finer, sharper lines.
<b>7H to 9H</b>	Engravers, stonemasons, patternmakers, and where extremely hard leads are required. Used with glass tracing cloth by draftsmen.

There is naturally some overlapping in the uses for the various grades of lead hardness. A person, for example, might prefer a softer lead than HB or harder lead than H for his own particular general writing use. For comparative purposes, however, the HB grade compares favorably with the No. 2, most popular of the general writing pencil group.

 6B	 HB	 4H
 5B	 F	 5H
 4B	 H	 6H
 3B	 2H	 7H
 2B	 3H	 8H
 B	<b>HARDNESS GRADE CHART</b>	 9H

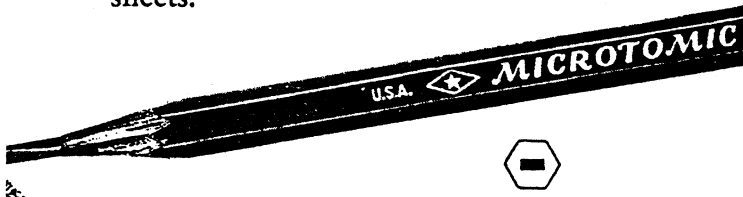
In order to retain the same approximate point strength, the diameter of the pencil leads increases as the hardness grade gets softer. The harder grades will have the smaller-diameter leads. This fact contributes to their ability to produce fine lines and more detailed work.

Drawing pencils are usually marked with their degree designations on three or all sides. No matter how the pencil falls, the designation is always visible. This is a decided advantage to the craftsman who is continually selecting a pencil from several in front of him.

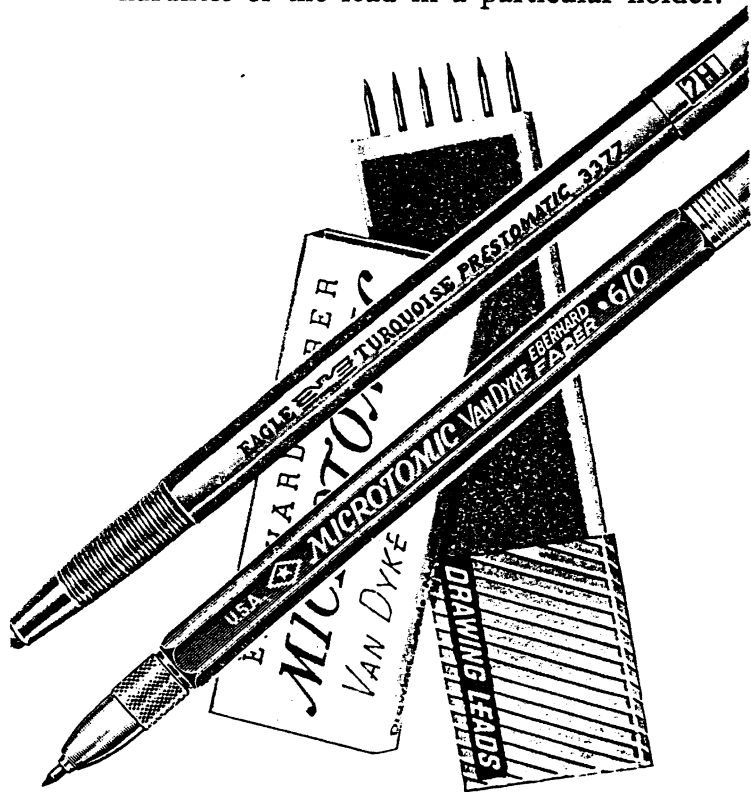


Even more important than in general writing pencils is the requirement that the drawing pencil must match the writing surface of the paper or tracing cloth. High pencil-tooth drawing vellums and tracing cloth are popular with draftsmen, and these require the harder grades of leads. Too soft lead will give unsatisfactory lines.

Flat lead, longer in one dimension than the diameter of conventional round lead, is available in some drawing pencils. The lead is sharpened into a chisel point rather than a needle point. Its purpose is to make longer lines before re-sharpening and it is especially recommended for large dimensional tracing sheets.

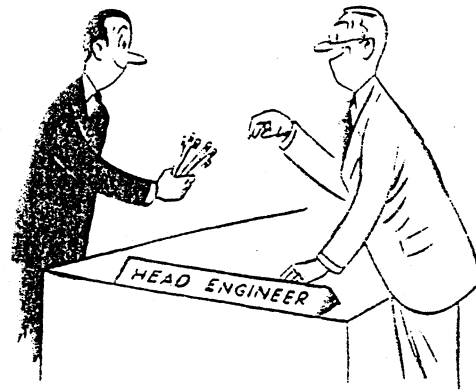


Drawing leads for use in lead holders are available in the same quality as the leads in drawing pencils. They are furnished in lengths of approximately five inches and in the same hardness range as the pencils. The lead holders use various devices to identify the hardness of the lead in a particular holder.



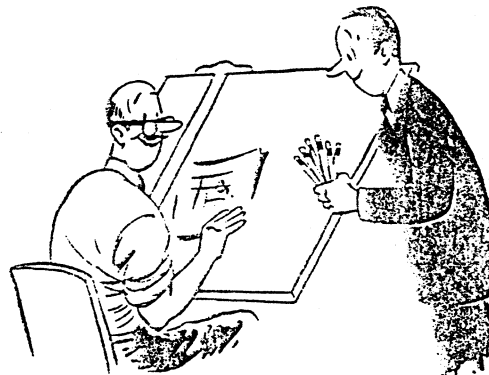
## Whom Do You See?

The purchasing agent would never dare buy drawing pencils for the engineers without their specification. The man to see about drawing pencils in any firm, therefore, is the chief engineer or chief draftsman. If the men furnish their own pencils, of course, you will want to arrange to contact them individually.

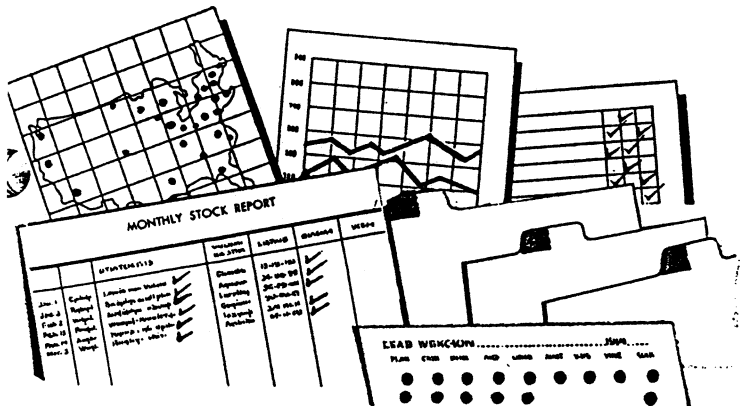
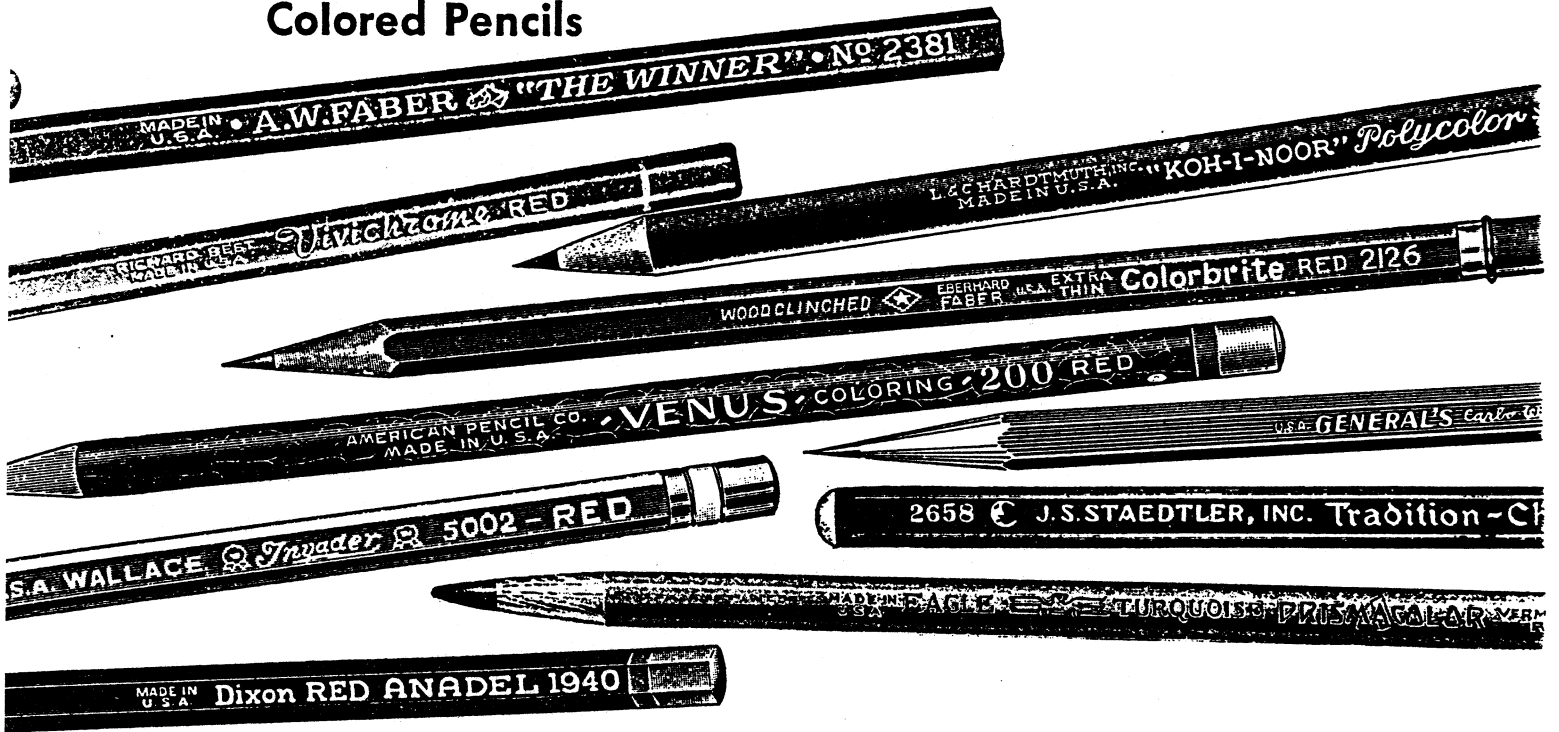


When you can recommend the superior quality found in drawing pencils for other uses in the office and plant, you will contact the office manager or other principal official who will make the recommendations. Many executives like to use a drawing pencil in preference to the general writing types. A direct call on the executive, his secretary, or even the purchasing agent, may result in the sale of a reasonable number of drawing pencils for general writing use.

The head of the art department, publicity department, advertising department, and other specialized offices will be interested in the value of the drawing pencil lines you carry. Most of the orders for pencils in these offices are the result of special requisitions to the purchasing agent.



# Colored Pencils



Colored pencils first came into use for artists and schools. But today, industry depends on the colored pencils as indicators on production charts, blueprints, motion studies, sales charts, and routine checking. The various colors are used as a code as well as for decorative purposes.

In charts and graphs, a number of colored lines can be used on the same drawing, even criss-crossing, without confusion. In many cases, each executive or auditor of papers is assigned a different colored pencil for use in making notations. The color identifies the notation as being his.

In contrast to regular pencils which use graphite as a base, colored pencils use dyes and pigments. They have a different formula than the colored crayons, however, which are principally made of waxes.

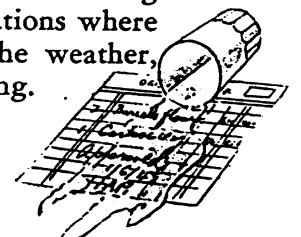
## Soluble or Insoluble?

Colored pencils have two broad classifications, soluble and insoluble. The formulas differ so that water has no effect on one, and partially dissolves the other.

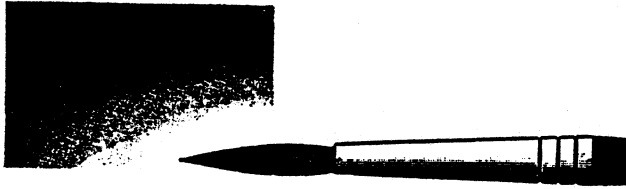
Colored pencils can be further classified into thick and thin leads. The thick leads are of the waxy, insoluble type. Thin leads are comparatively recent on the market and may be either soluble or insoluble. They have a harder texture which permits their thinner form and allows sharpening to a finer point.

Both soluble and insoluble leads, and both thick and thin types are used in pencils for general checking and marking use. Personal preference seems to be the major deciding factor, and the features of the particular pencils you sell should be studied so that you can help your customer in matching the proper pencil to his need. Colored pencils have almost replaced the red ink and pen for correction work in schools and for accounting records.

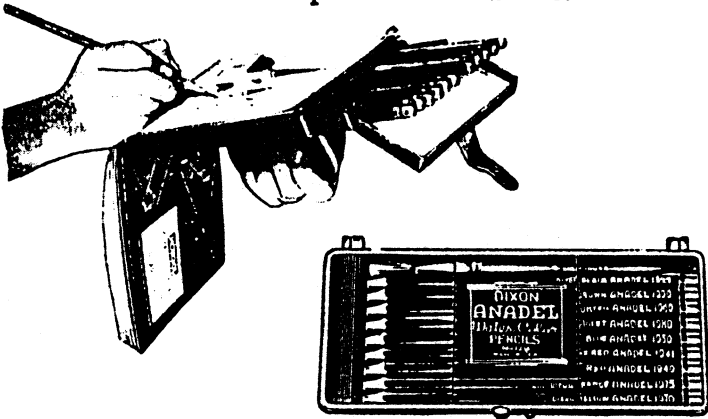
Insoluble leads, having a waxy pigment, are recommended for blueprints, accounting records, charts, and other applications where the paper will be exposed to the weather, dampness or considerable handling.



Special artistic effects resembling water color paintings can be obtained by making sketches with soluble-lead colored pencils, then brushing the drawing with plain water and brush. The pencil allows greater control and detail than does the conventional water color brush methods.

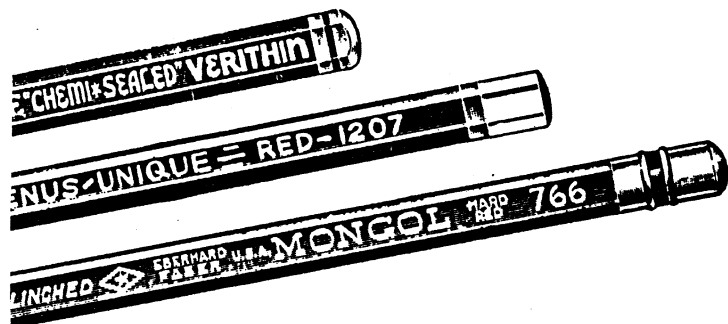


Architects, especially, use this process in making their drawings of proposed buildings in color. Photographers use the soluble colored pencils for tinting photographs. Special sets containing a color assortment and brush are available in pouches and boxes.



Although the red, blue, green and yellow colors are the most popular in single choices, colored pencils are packaged in a variety of assortments to as many as 48 different colors, including gold and silver.

Colored pencils are generally sold untipped or fitted with a metal or plastic protecting cap. The cap keeps the color from coming off on the tongue of pencil-biters, seals the top against moisture penetration, and also



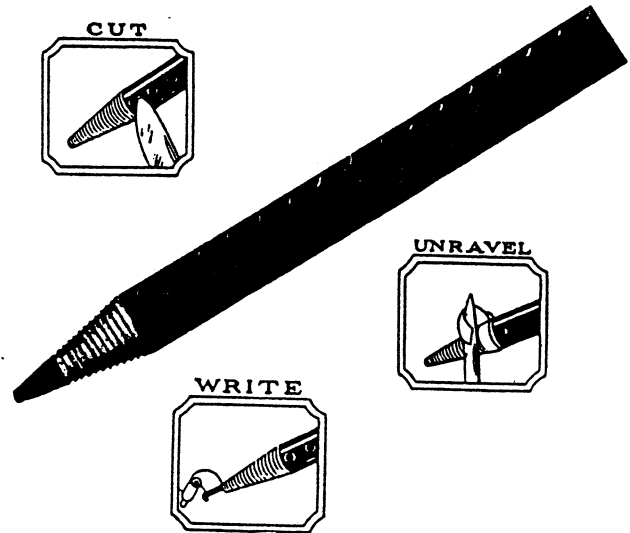
adds to the general appearance of the pencil. Eraser tips of the type found on the general writing pencils are also available on colored pencils.

Colored leads of the same types used in the pencils are available for use in lead holders. Half-sizes in pencils are also marketed and are especially popular for school children because of their ease in carrying.

The more common colors in pencils are available in hard and extra-hard leads. They do not break so easily under heavy writing pressure and permit sharpening to needle points for fine line and detail work. Book-keepers, too, like the harder leads.

### Soft and paper-wrapped

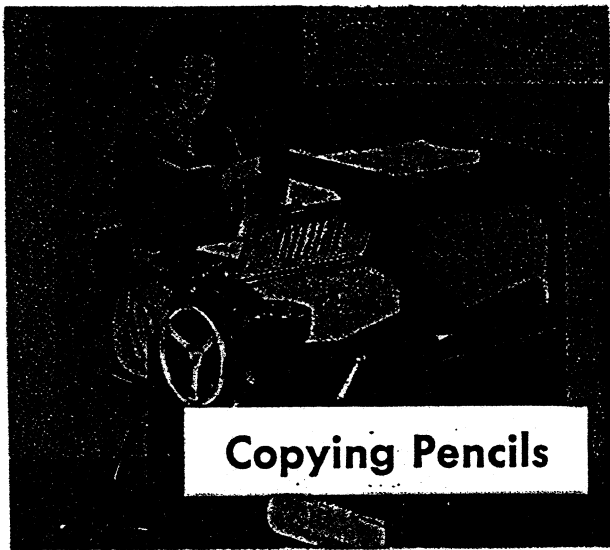
Some of the crayon leads in colors and black are too soft to sharpen in the regular pencil sharpener. These are paper-wrapped. To sharpen these pencils, a knife or pin is used to cut through the outer wrapper, then a ribbon of paper is unraveled to produce a new length of exposed lead.



### 6 Qualities of a Good Color Pencil

Manufacturers strive to produce a colored lead having:

1. Brilliance of color
2. Smoothness of writing
3. Blending ability
4. Strength
5. Light resistance
6. Complete solubility (if soluble lead) or Permanence (if insoluble lead)



## Copying Pencils

Copying pencils came into use the latter part of the 19th Century. Their leads included a methyl violet dye which transferred the mark from an original to wet copy paper when placed in a copying press. When carbon paper was introduced, the old pencil copying method lost out, but the copying pencil continued to be used. Its smooth lead in the medium and harder grades made it ideal for manifold work, for extra pressure could be exerted without gouging the top sheet.

Copying pencils are often called "indelible" pencils. "Indelible" means "incapable of being deleted or obliterated." This definition is sometimes confusing to those who note that the indelible pencil mark can be smeared with a wet finger. Actually, water will spread the mark, but only once. After that, the fibers of the material are impregnated and the mark becomes harder to remove than ink because eradicators alone will not affect it. The moisture in the air and paper will set the mark in time so that it will not smear. In effect, the mark changes into ink, a fact which makes an indelible pencil signature legally acceptable in the same manner as a pen-written signature.

A graphite-content copying pencil writes black and copies purple. When no graphite is used in the formula, the pencil writes and copies in the same color.

The harder copying pencils are used especially for carbon copy work because of their smoothness under heavy writing pressure. Their leads are stronger than that of the softer grades.

The medium and soft copying pencils have a greater proportion of aniline dye in the formulas and are used for making master copies for reproduction of a small quantity of copies on gelatin duplicators. The number of copies obtained depends on the writing pressure exerted and the softness of the lead. Stated simply, the more dye deposited on the paper, the more copies that can be reproduced.

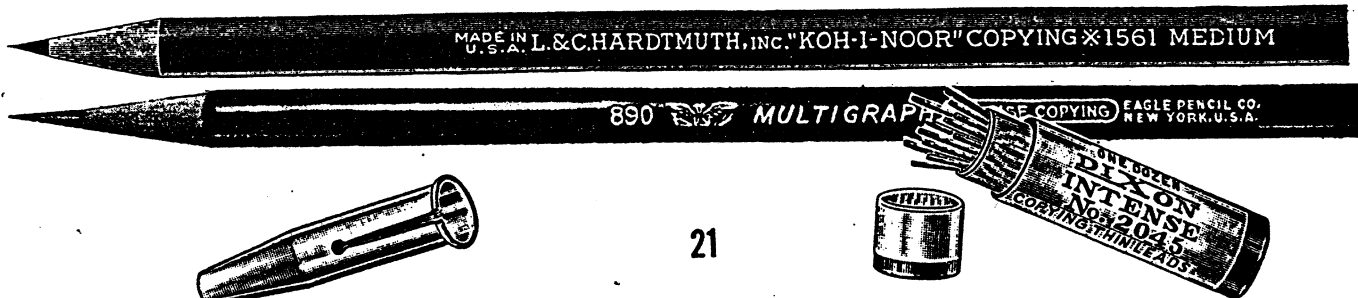
### Intense for Duplication

The "intense" copying pencil is used for making masters for use on duplicating machines using gelatin or liquid process methods. The special aniline dye lead produces a deep violet mark which will make as many as 200 clear copies. The intense copying pencil is sometimes called a "hektograph" or "duplicating" pencil. It has a softer lead and more intense dye than the regular copying pencil and requires a longer curing period during manufacture. In addition to the standard violet color, hektograph pencils are also furnished in red, green and blue.

The dye in copying pencils will stain the fingers. It will also stain the lips of persons who have the habit of biting their pencils. Fortunately, the dye is NOT poisonous; in fact, it is a mild antiseptic. Point protectors are recommended and sometimes furnished with copying pencils, especially the intense grades, to keep the dye from rubbing off on articles the pencil may contact when not in use. The tips of the pencils are also capped in metal or plastic to cover the exposed end of the lead. These caps provide a seal which keeps moisture from deteriorating the lead.

### For corrections

A white, pigment lead pencil is used to make corrections on duplication masters. The pigment coats the dye and prevents it from transferring during the reproduction. The white pencil is also used by typists to smooth up an erasure in regular typing. An erasure may make a slight smudge or roughen the surface and the pencil makes it less noticeable. White correction pencils are also manufactured in paper wrapping.





## Thick Lead Pencils

We might group together as a special classification, the pencils which use a lead which is larger than the general writing and drawing pencils. The primary purpose of this class of pencil is to make a heavier, blacker mark for drawing, sketching, checking and marking.



The diameter of the leads, although always larger than regular lines, varies in size depending on the strength of the lead. The softer leads require a larger diameter to maintain strength.

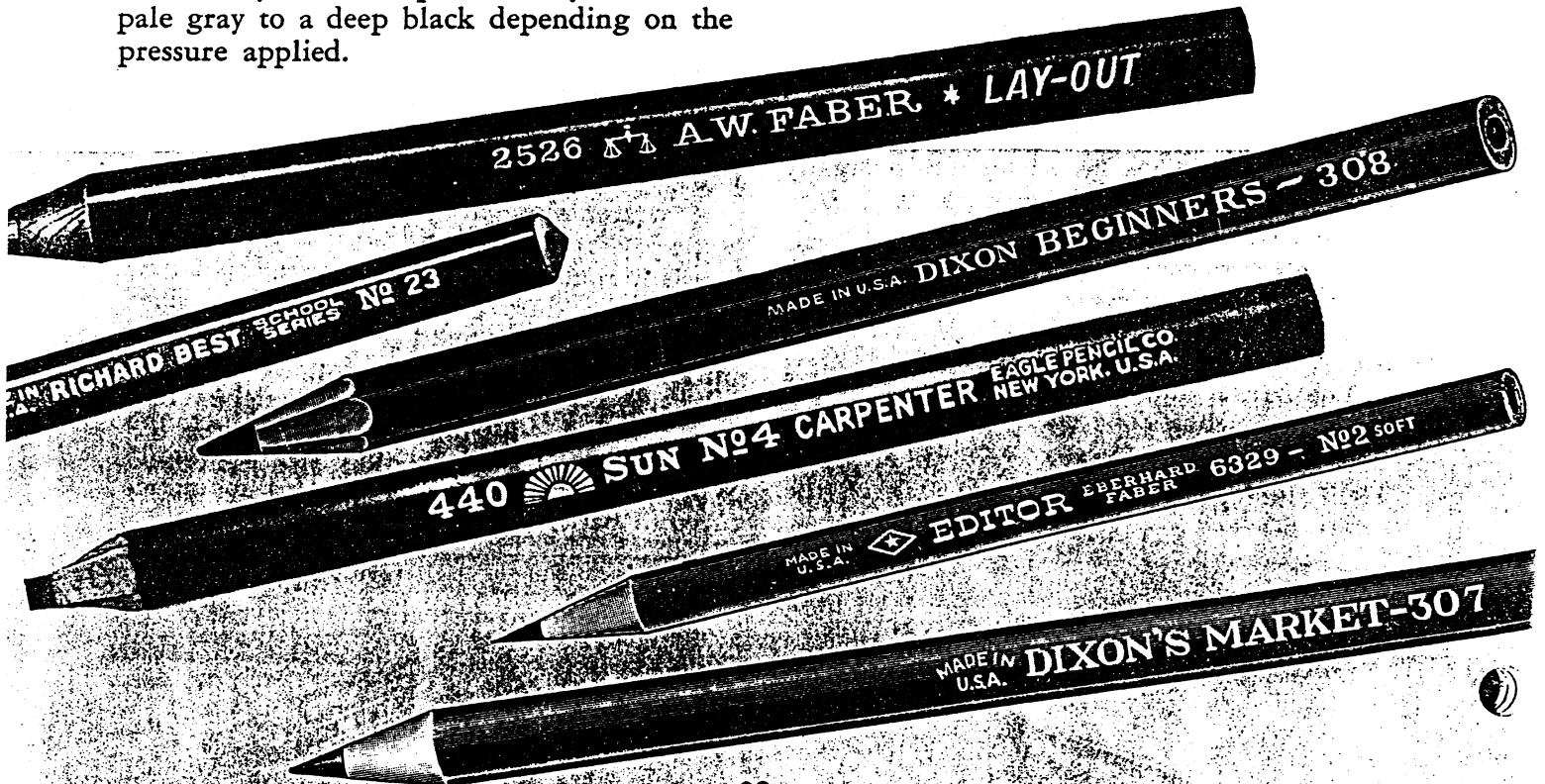
When used for drawing and sketching, the same heavy lead will produce any tone from pale gray to a deep black depending on the pressure applied.

School pencils use soft leads to make writing easier without applying heavy pressure, thus encouraging free-hand movements. The softer lead is also better for use on the soft papers found in the usual school work. The extra thickness in the total diameter of the school pencil allows the smaller hands of the children to hold it without cramping the muscles. The teachers encourage the development of muscular writing rather than finger writing, and the larger pencil encourages this type of action.

Newspaper editors and proofreaders like the bold marks made by the heavier leads. The bulky paper used in the editorial rooms is too soft for the ordinary pencils. With the heavy mark, corrections and notations are easily found.

Stores and markets use the heavier leads for checking merchandise lists and for marking packages.

Carpenters use a distinctive style of pencil, usually with a flat rather than round lead, and a length of seven or nine inches. The body is oval or flat to prevent the pencil from rolling off the work, and the overall size is large enough for easy holding, even with gloves in cold weather. The lead is soft, medium or hard. A very soft lead is used for marking wet or green lumber.

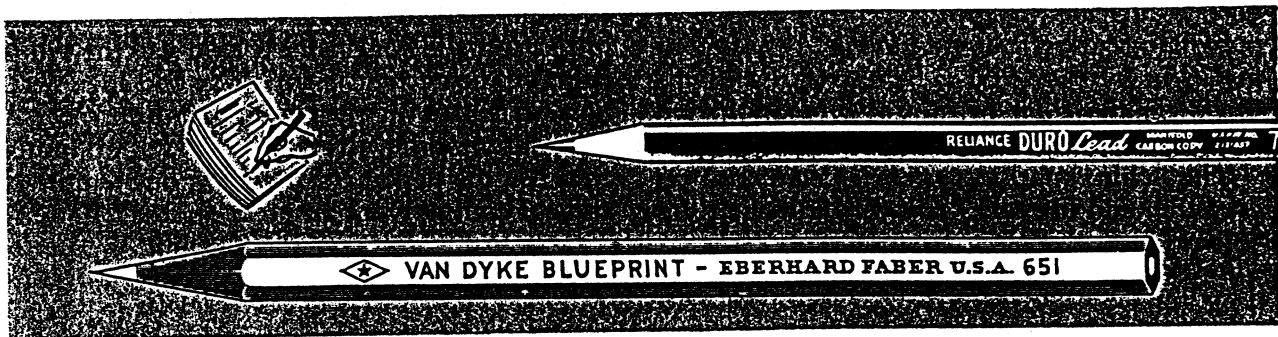


## Special Purpose Pencils

There are a large number of pencils whose body size, fittings or lead formulas are designed for a particular use. Because their total demand is less than that of the general writing pencils, the stationer finds they have less competition and price-cutting. By specializing in these lines, the stationer can build the volume necessary to produce good profits.

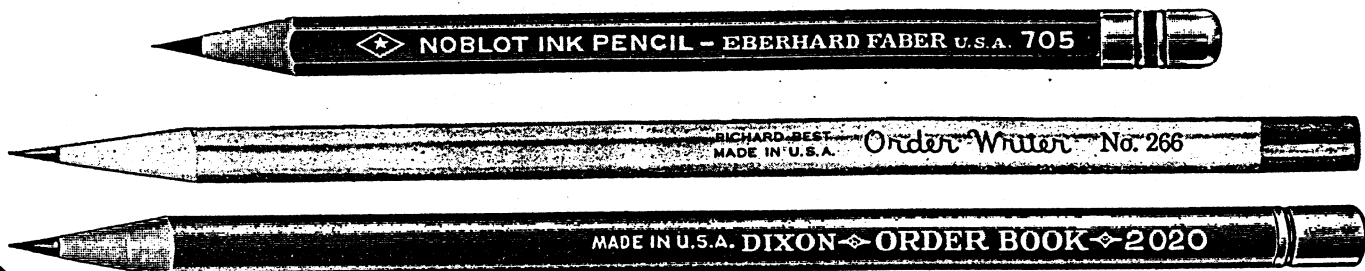
**MANIFOLDING.** There are many operations in business that require the making of a number of carbon copies with a hand-written original. Autographic registers and sales books are examples. The copying pencil, as explained previously, has been popular for this job because of its smooth writing under pressure. There are other pencils designed for manifolding use, however, that get away from the possible staining of fingers and the slight blurring in dampness. They offer a smooth lead which will not cut the top sheet and a strong lead which does not break easily under the pressure necessary to make the multiple copies.

**BLUEPRINT.** The blueprint has a dark blue background with white lines. Any notations on the print must be made with a color which is lighter than the blue or one which contrasts sufficiently to make it easily seen. The white, insoluble pigment pencil is commonly used for this purpose. Yellow lead pencils are also quite popular because they give additional contrast with the blue and can be easily distinguished from the white lines on the print. Other colors, used especially for coding the various notations made by persons who read the print, are orange, vermillion, red, green and silver. Dark and light blue pencils are used to make corrections on the print, removing unwanted white lines merely by filling them in with the blue pencil which matches the background. Because the blueprint is handled extensively and is used under moist conditions, the pencil leads are usually of the insoluble type. Like other colored pencils, blueprint pencils are available in box assortments.



**ORDER BOOK.** An order book pencil is a manifolding pencil offered to those firms using hand-written orders and invoices. It has a lead somewhat harder than the average writing pencil to permit the use of more writing pressure.

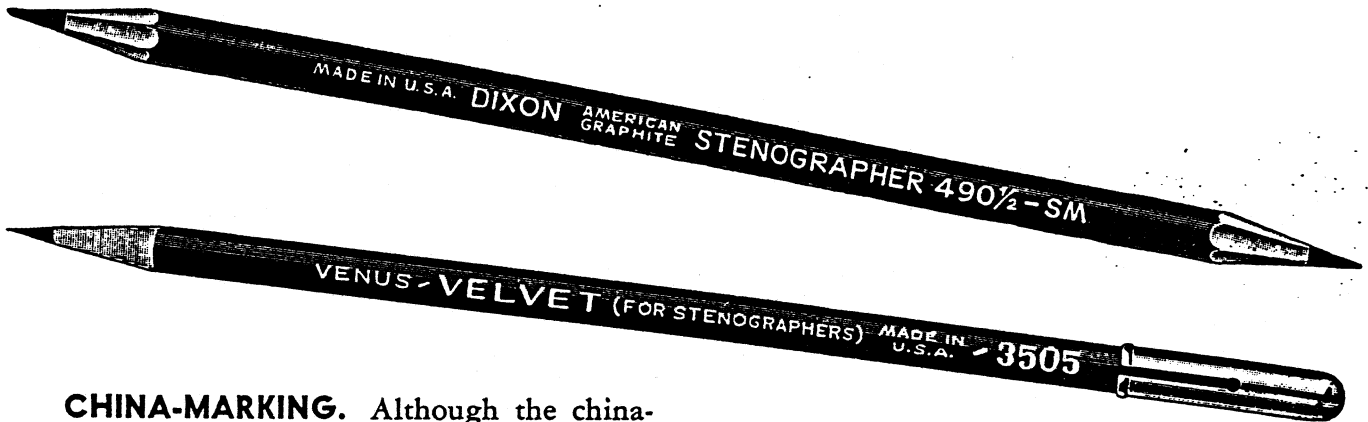
**INK PENCIL.** The ink pencil is a type of copying pencil with a formula that writes black and copies blue. Some styles having no graphite write and copy blue. The ink pencil is designed for signatures and for any type of permanent writing.



**SHORTHAND.** A special pencil is available for stenographers and secretaries for taking shorthand notes. It may have either a standard or thin-diameter lead and may be sharpened at one or both ends. When sharpened at both ends, a point protector for the end not in use is commonly furnished or recommended.

The grade of lead in the shorthand pencil may not be indicated, but it conforms to the

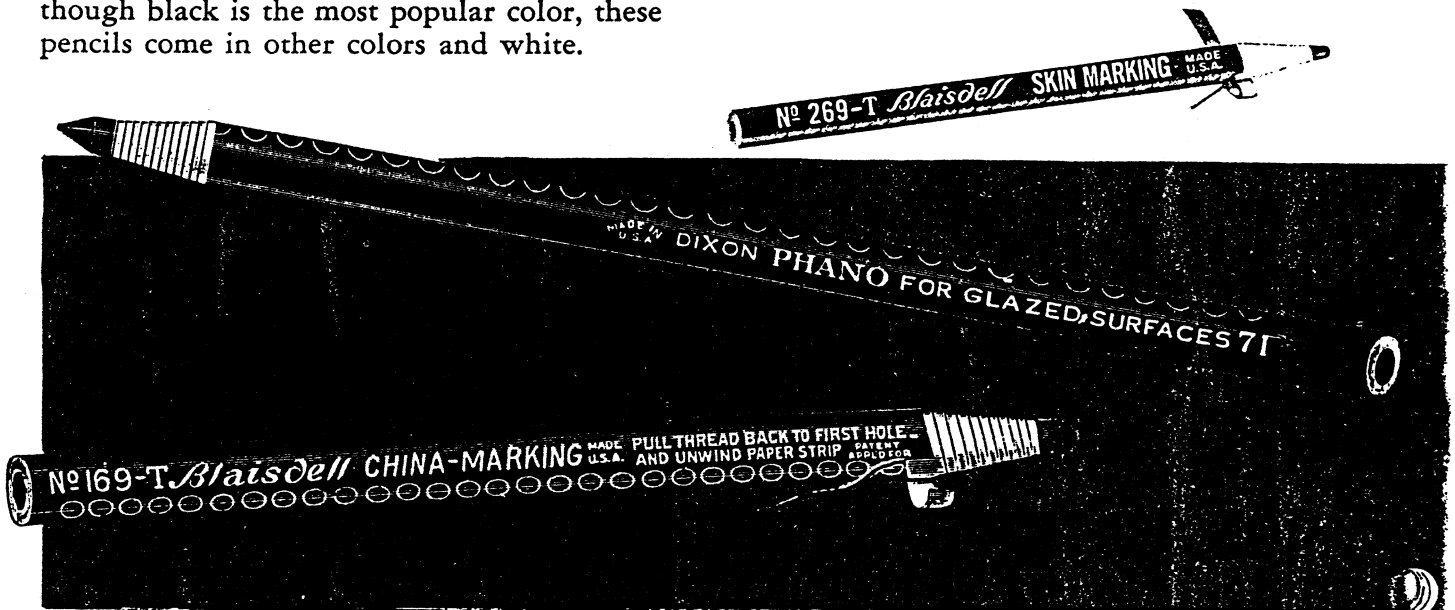
requirements of the stenographer or court reporter. In some cases, the markings "S" and "SM" for soft and soft-medium are used. These compare to grades 1 and 2 respectively in the usual grading. Pitman shorthand users prefer a softer grade than those using shorthand methods not requiring shadings. One style of shorthand pencil has about one-fourth of its length made of red lead for checking and special notations.



**CHINA-MARKING.** Although the china-marking pencil gets its name from its original use for marking prices on the smooth surface of china ware, it is now used for marking all glazed surfaces of glass, metal, cellophane, porcelain, cutlery, movie films, etc. Surgeons use it on human skin and the packing plants use it on the sides of meat for identification marks.

The china-marking pencil contains no graphite, and in reality is a very low-melting-point crayon. It is too soft for ordinary sharpening, and is therefore paper-wrapped. Although black is the most popular color, these pencils come in other colors and white.

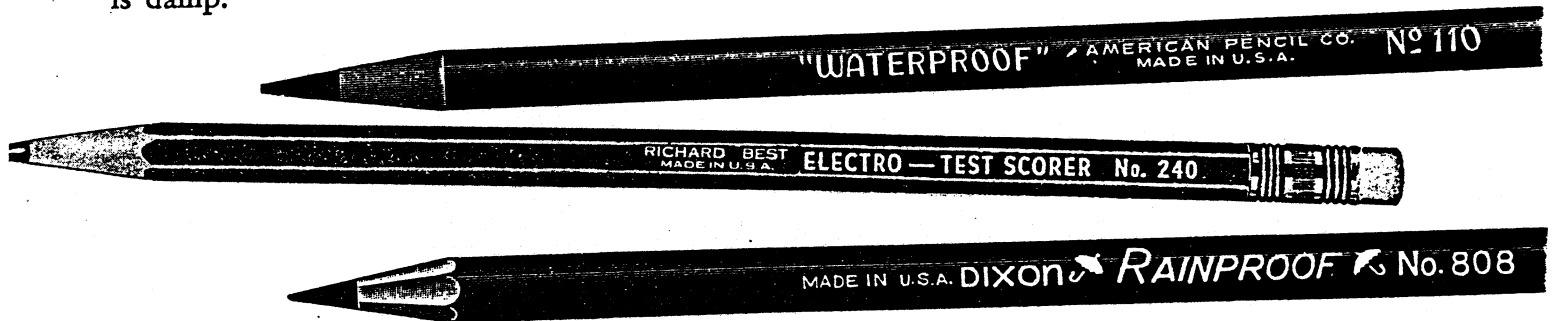
Training aids departments of schools, libraries and sales training firms use a variety of china-marking pencils in colors for making projection slides. Business men use the white china marking pencil for limit and identification markings on electronic dictation records. The automobile, aircraft, and similar industries use the pencil for marking out templates and for coding work in press rooms, trimming rooms, and inspection departments.





**MOISTURE RESISTANT.** The moisture-resistant pencil is used for marking shipping tags by express and trucking companies; by gardeners and nurserymen for marking the wooden tags on plants and shrubs; and for any other writing that will be exposed to water or weather. It is generally made of a pigment lead. Although the graphite in any pencil is moisture resistant, the pigment makes the mark easier to read when the label is damp.

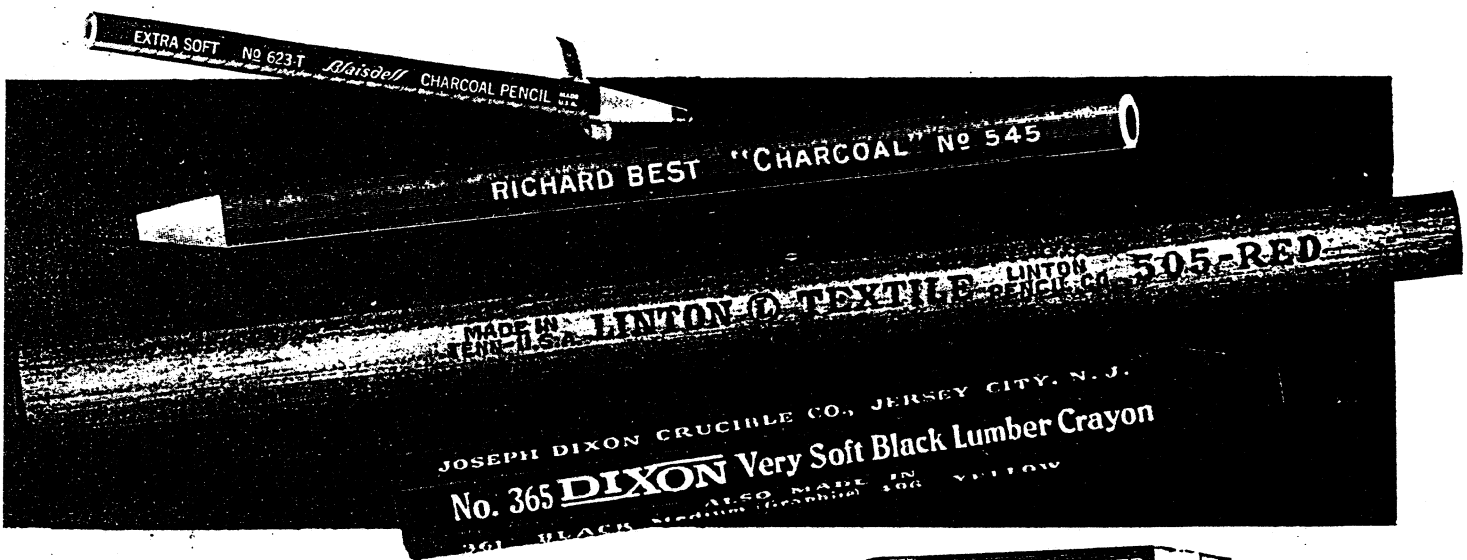
**CONDUCTIVE.** Pencils with leads having a specific electrical conductivity quality are used to mark tests, questionnaires, and similar forms. These forms, in turn, are fed into an electronic scoring machine which "scores" the form by means of electrical impulses actuated when tiny fingers touch a mark. A pencil mark in the right answer square, for example, would contact the machine's "finger" and the score would be increased accordingly.



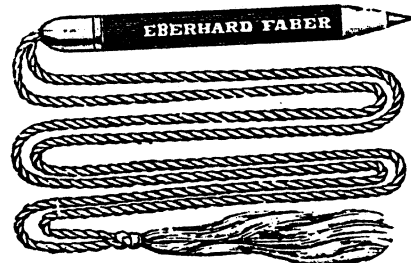
**CHARCOAL.** The charcoal pencil is used by artists in sketching and layout work. It is much cleaner in use and generally more uniform in texture than the true charcoal sticks. Since the mark made by charcoal is very difficult to remove from cloth, it can be used for laundry marking or for permanent marking of cloth at the mills. Charcoal pencils are also obtainable paper-wrapped.

**TEXTILE.** Textile manufacturers require a pencil which will make a clear mark for cutting and sewing but which will bleach out without a trace when the garment is readied for sale.

**LUMBER.** Large sticks of graphite, wrapped in paper like a crayon, are used in the lumber industry for marking and grading lumber. Large compressed color crayons are also used in the same manner.



**PROGRAM.** Little pencils of small diameter and length and having a cap and decorative string, are used to attach to dance programs and similar booklets.

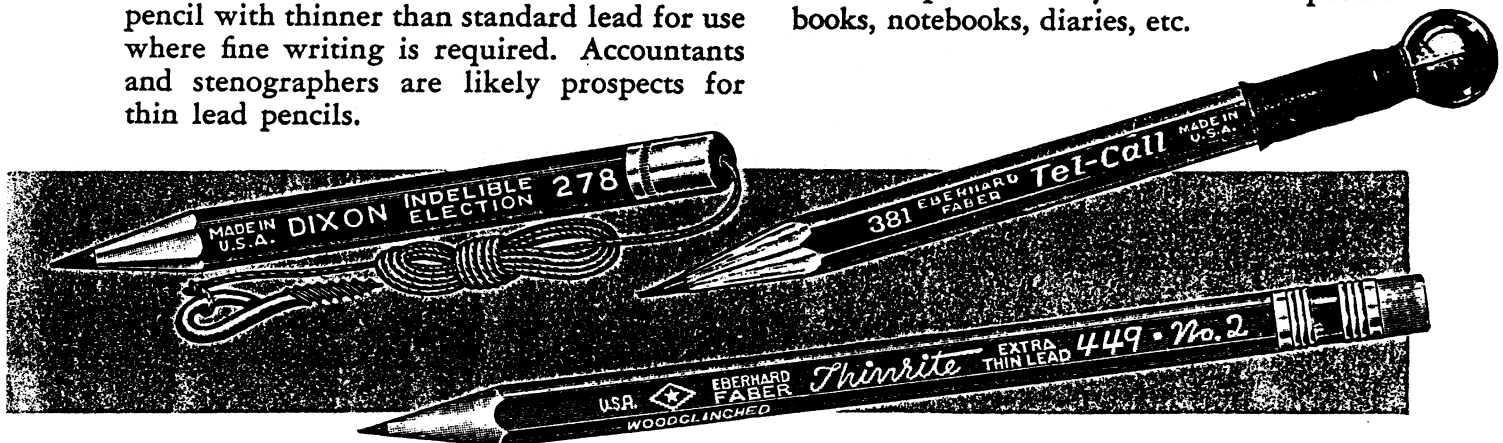


**ELECTION.** Election pencils may have standard graphite, indelible, or blue lead, depending on the requirements of the election area. They are characterized by a cap with a string attached and a screw-eye for securing the pencil to the voting booth. Pencils may be standard or half-length.

**THIN LEAD.** Some manufacturers make a pencil with thinner than standard lead for use where fine writing is required. Accountants and stenographers are likely prospects for thin lead pencils.

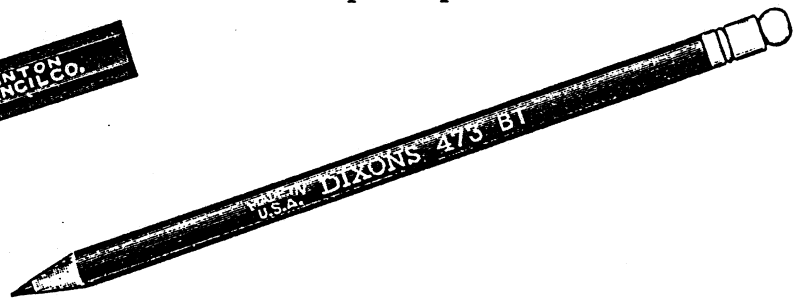
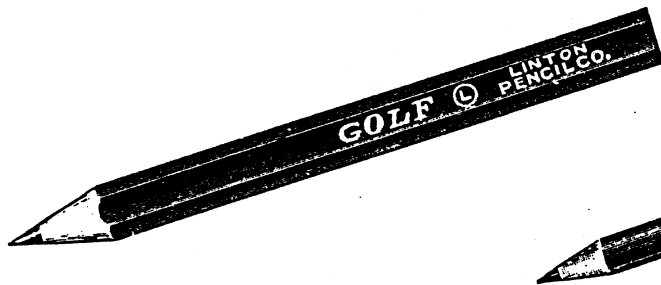
**TELEPHONE.** A pencil, usually shorter than average, may be fitted with a special cap having a ball end. The ball end is used to dial the telephone number, saving finger nails.

**THIN DIAMETER.** Pencils for general use can be had in a diameter less than that of the standard pencil. They are used in pocket-books, notebooks, diaries, etc.



**SCORING.** Many pencils are used for marking golf cards, bridge pads, and for party games. Regular pencils, sharpened, and about half the normal length, are available for this purpose.

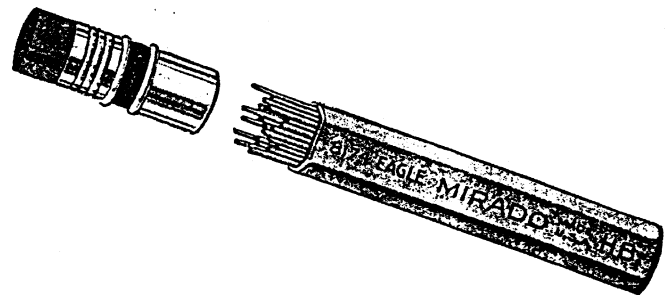
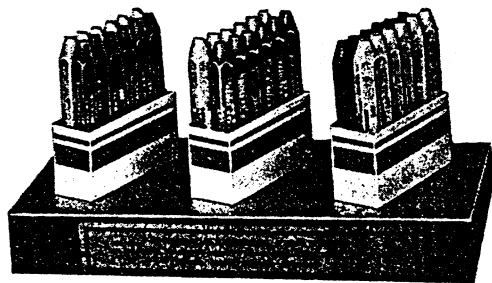
**POCKETBOOK.** A shorter pencil, similar to the scoring pencils, is sold for use in women's pocketbooks. A protector is furnished or suggested to protect the contents from the sharpened point.

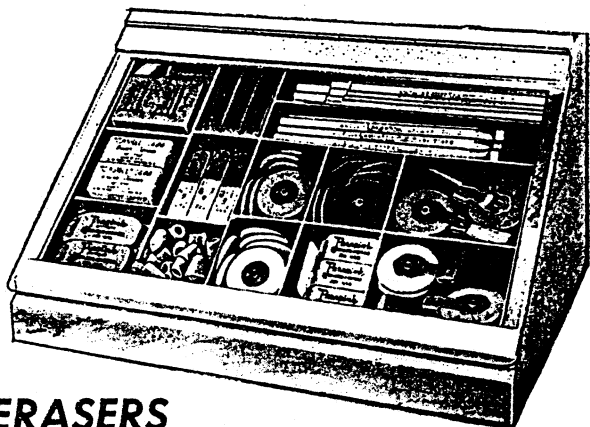


**MARKING CRAYONS.** Although not a pencil, marking crayons have industrial uses closely allied to pencils. Crayons are used for marking lumber, wet surfaces, hot steel, glass, cellophane, plastics, cement, rubber, leather, and any other surface. Look for the industrial uses in your city, for there is a good market there.

**Leads for Mechanical Pencils**

Leads for mechanical pencils were covered in Manual 4, "How to Sell Fountain Pens and Mechanical Pencils." They are generally made by the manufacturers of wood-cased pencils and their quality is just as important as the same quality in a wood-cased pencil.





## ERASERS

If the pencil is man's first tool for any job, then the eraser would surely be his second tool. There is an eraser designed to remove almost every unwanted mark made by pencil, ink, typewriter or dirt.

The eraser was born, somewhat by accident, about 1850. An experimenter using a ball of crude latex from the hevea tree of South America, noted that when he kneaded a ball of it and some chemicals in his hand, the hand was nicely cleaned. The name "rubber" was given to this latex as a result of the action involved in removing dirt with it. Originally, all the rubber came from South America, but the monopoly prices resulted in seedlings being taken to Ceylon and other countries where rubber plantations could be developed.

Today, the eraser manufacturer gets his semi-refined sheets of rubber from various sources according to the use he wishes to make of it. In addition, he also uses synthetic rubber in some of his formulas.

After further cleaning and refining of the crude rubber, it is compounded with sulphur, chemical cleaners, age retardents, abrasives and color to a formula determined by the use for which the eraser is designed. This mixture is milled through heavy steel rollers until there is a completely uniform distribution, then rolled into flat stock or extruded into shapes for vulcanizing. After vulcanizing, the erasers are cut to size and shapes, tumbled to smooth the edges, and stamped.

### How Does It Work?

Although rubber has an affinity for carbon and will, by itself, remove some marks, its primary use in an eraser is to provide a flexible binder for chemical cleaners and abrasives. The eraser is compounded with a gum cleaner so that particles crumble away, taking the dirt with them instead of holding it and staining the rest of the work. This crumbling action also reduces the wear on the paper.

The gum cleaner is a "rubber factice," a rubber-like substance made by vulcanizing vegetable oils.

Abrasives dispersed throughout the eraser actually do the removal of the imbedded marks. The quality and harshness of the abrasives are determined by the purpose of the eraser. If the eraser is too coarse, it cuts too deeply into the paper. If it is too soft, the eraser does not reach the imbedded marks.

Sulphur is added to the rubber to increase its hardness or firmness. A firm rubber binder cuts faster than a softer one because the softer rubber acts as a cushion behind the abrasive particles. A fine abrasive in firm rubber will cut faster than a coarser abrasive in a soft rubber binder. The softer binder gives better control, however, because a fast-cutting eraser may go through the paper too quickly in the hands of a careless user.

Rubber hardens as it ages, causing it to drag across the surface rather than crumble. Age retardants in the formula greatly increase the life of the eraser. Color is added to improve appearance and to help in identification of the eraser's purpose.

## Types of Erasers

There are four primary types of erasers: Ink or typewriter; pencil; kneadable; and gum cleaners. Ink, typewriter, and pencil erasers are made of natural or synthetic rubber, technically called "hydro-carbon." Before they can be used, they have to be vulcanized. Kneadable erasers are made of uncured rubber or plastic. Gum cleaners are made of oils and have no rubber in them.

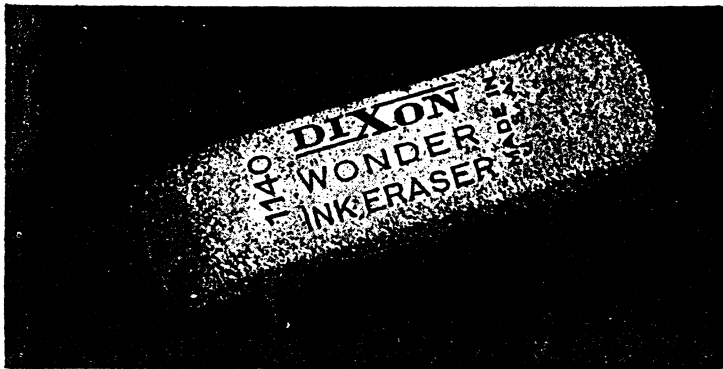
**PENCIL ERASERS.** Erasers designed to remove pencil marks come in several degrees of relative hardness of rubber and coarseness of abrasives. The softest type is naturally preferred for the marks easiest to remove, like the softer leads. The softer the eraser, the less damage to the surface of the paper.

As the marks are more deeply imbedded or more stubborn to remove, the eraser used must be firmer to give more pressure and must contain more or harsher abrasive to dig out the mark.



Draftsmen prefer a firm, medium pencil eraser to remove ink marks. The ink erasers would do the job quicker, but they would also increase the danger of removing an excess of paper. When too much of the paper surface is removed, a line redrawn in ink over the same spot has a tendency to spread and blur.

**INK ERASERS.** The ink eraser has a coarser abrasive, required to cut the paper to the depth of ink penetration. It comes in several degrees of hardness of rubber and coarseness of abrasives. The firmer the rubber, and the coarser or more plentiful the abrasive, the faster the cutting action.



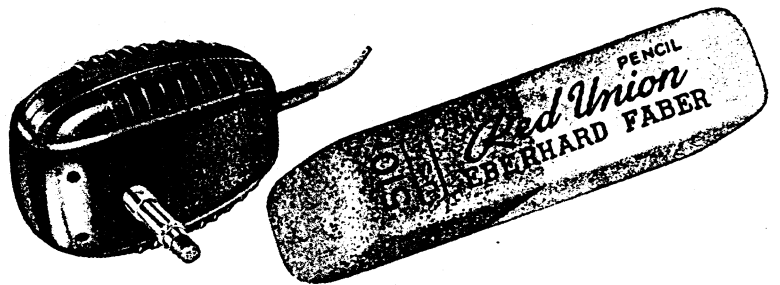
### All Colors and Shapes

Pencil and ink erasers come in a variety of colors and shapes. Color seems to have no significance in the industry, being purely a matter of personal preference. Gray seems to be reserved for the ink eraser, but the red color is used for both pencil and ink erasers. Various shades of green and pink are also used, and the lighter tints seem to represent the erasers with softer compounds.

The most common shape for the standard pencil and ink erasers is the oblong with beveled ends. Square shapes are also used, however, especially in the softer erasers designed primarily for cleaning. Oblong, five-sided erasers are also offered for cleaning broad surfaces, yet giving ten pointed corners for more exacting work.

Since each type of eraser is best suited for a particular purpose, the combination pencil and ink eraser is popular with those who do not use an eraser frequently and yet have use for both types. In making the combination eraser, a section of ink eraser and a section of pencil eraser are vulcanized together before cutting and smoothing.

Cylinder strips and disks of ink and pencil eraser materials are used in electric erasing machines by draftsmen, librarians, accountants, and others having a considerable amount of erasing and cleaning to do.



**TYPEWRITER ERASERS.** The typewriter eraser is a special-purpose ink eraser. It must remove the ink placed on the paper by the typewriter key as it strikes through the inked ribbon. It is also used to remove pencil marks and to erase carbon copies. It has become the largest seller of all the erasers.

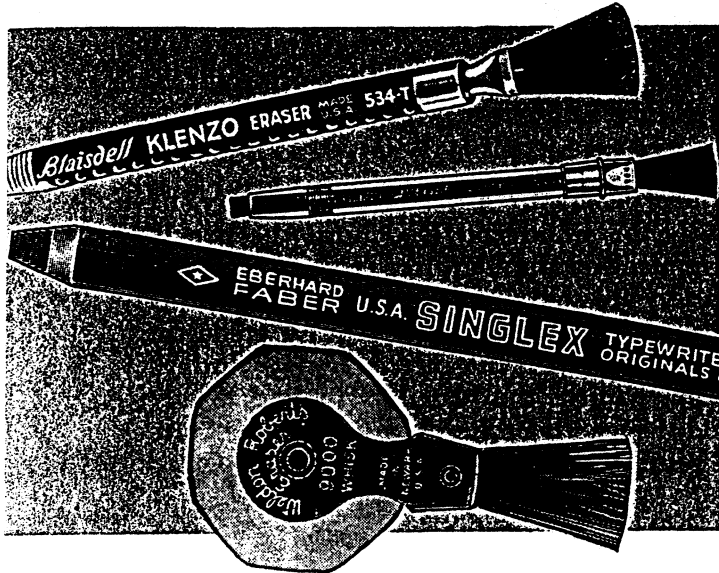
For ordinary typing on bond papers, the eraser with a coarse abrasive and a soft compound is recommended. As more speed is desired, or as the surface gets harder, the firmer compound with a finer abrasive is needed. This might be the case in the typing of ledger forms.

The typewriter eraser most commonly used is the thin, circular model. Its thinness allows it to erase one character with a minimum of injury to the ones on either side. The eraser with the firmer compounds are usually thinner than the softer ones. The soft erasers require greater thickness to obtain sufficient support. Metal or plastic disks on the sides of the eraser give extra support.

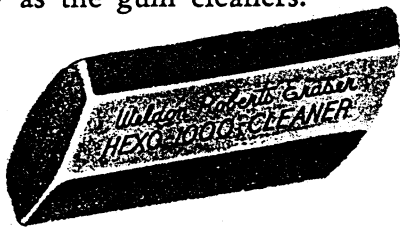
A popular eraser is the combination, three-layer typewriter eraser having a fast-cutting center section, and softer sides for smoothing the paper and for erasing carbon copies.



A brush-attached typewriter eraser is quite popular. The brush is used to flick the erasure particles away from the machine. If they are allowed to fall into the working parts of the typewriter, they soon cause the keys to gum up and finally stick. The abrasives and dirt also wear the typewriter parts unnecessarily.



**CLEANERS.** Special soft erasers are now compounded to clean soiled paper, cloth, leather, and other surfaces as well as to remove pencil marks. They do not crumble as readily as the gum cleaners.

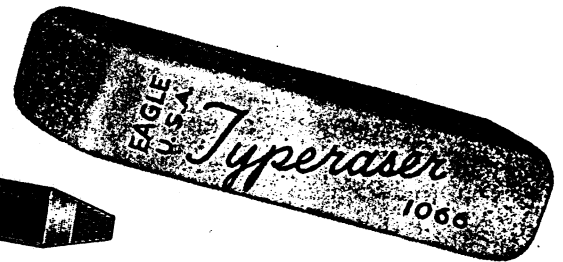


**GUM CLEANERS.** The gum cleaner contains no rubber. It is made, instead, with oils. As the name implies, it is used primarily for cleaning up surface dirt and smudges from drawings. It will not roughen soft paper or scratch coated paper. It is especially used to remove light pencil sketch or layout marks after the drawing has been inked in. The soft cleaner will not affect the inked lines, but will remove the marks and soil from around them. A gum eraser, called a "soap eraser," is popular in schools for cleaning drawings.

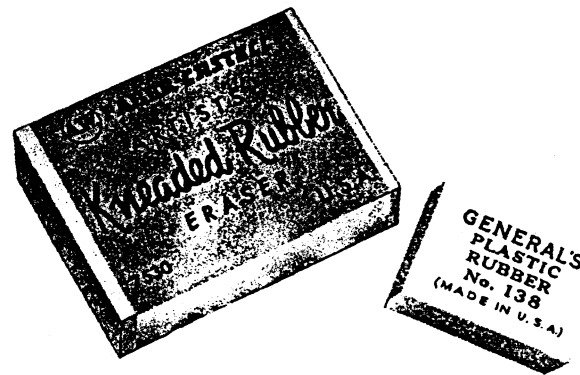


Typewriter erasers may be wood-cased or paper-wrapped and used like the ordinary pencil. They may contain all ink eraser material or part ink and part pencil or carbon paper eraser. Refill eraser strips are also used in pencil-like holders which allow the strip to be extended as it is used. Erasers made of spun glass are also supplied in cases resembling a pencil.

Strip erasers, whether wood-cased, paper-wrapped, or in holders, have the advantage of keeping clean and fresh. They also allow the erasure of single letters without the use of a shield.



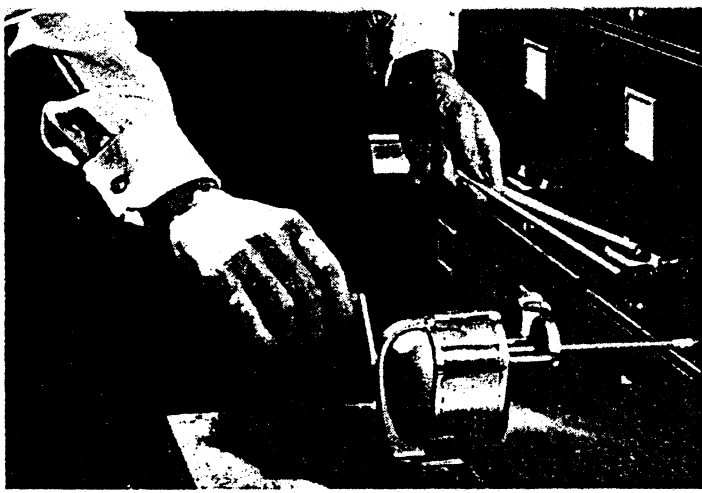
**KNEADABLE ERASERS.** A kneadable eraser is made of unvulcanized rubber or of plastic material so that it can be kneaded into any shape. It is used especially for removing and highlighting chalks, charcoal and pastels. It is used where the softest possible eraser is desired. Because of its ease of molding, it can be used to clean the type on typewriters.



### Protect your erasers

Sunlight discolors and ages rubber, so keep your stocks away from direct sunlight during display. Fluorescent lights seem to have a fading affect also. Keep the erasers away from excessive heat, for heat tends to shorten their life.

Since rubber has an affinity for dirt and soil, any open displays should be covered during sweeping, and should be changed frequently. Erasers in the stockroom should be kept covered and cool.

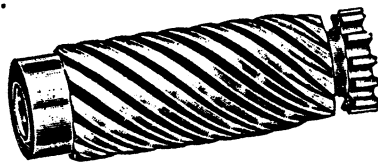


## PENCIL SHARPENERS

The pencil sharpener is probably the third most popular piece of equipment in the business office, bowing only to the desk and chair. The great increase in popularity of the wood-cased pencil undoubtedly owes much to the improvements made in sharpening or pointing equipment.

Pencil manufacturers agree on the importance of a good sharpener kept in good mechanical condition. Much of the complaints on point breaking, wood shredding, and off-center points which they receive can be traced to a worn-out sharpener or one improperly used.

One of the best services a salesman can render to his customers, and one which will improve his chances to increase his sales, is the regular inspection and servicing of their pencil sharpeners. A screw driver, a small oil can, a brush and a few sets of cutters take little space. Yet they may result in the sale of additional sharpeners, cutters, pencils, and other merchandise as the customer's good will is cultivated.



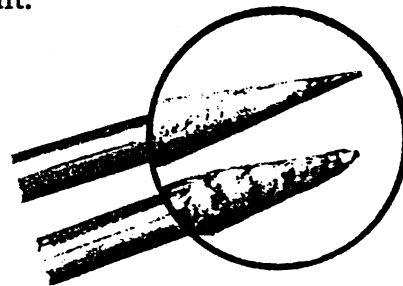
### Pencil Sharpener, or Pencil Butcher?

Possibly half of the pencil sharpeners in use in offices and homes today have passed their usefulness, and are now butchering pencils rather than sharpening them. We keep our automobile oiled and in good condition; we sharpen our knives when they get dull, and we change the ribbon and clean the typewriter when the need arises. But many offices expect the pencil sharpener to operate year in and year out without getting dull, worn and out of adjustment.

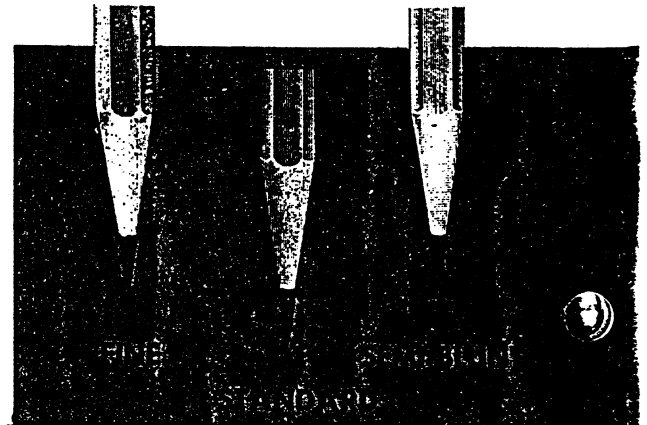
Although the sharpeners in production today have a long and useful life, their steel cutting edges cannot last indefinitely, cutting through lacquer, enamel, wood, adhesives, wax, graphite, and clay. The sharp edges gradually become dull. So gradually, in fact, that the user fails to realize it and he blames a new batch of pencils for splitting, lead-breaking, and chewed-up points.

### Get the point?

Sharpeners are intended to gradually shave away the wood and lead until the pencil is trimmed to the required taper. When the cutters are sharp and the machine is properly adjusted, a point can usually be made satisfactorily. When the cutters become dull, they begin to grip the pencil instead of shave it, and the lead is broken and the wood is torn as a result.

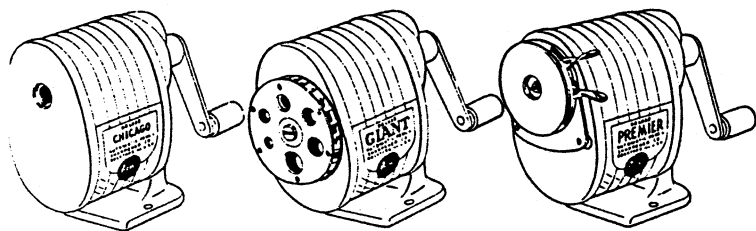


A pencil stop on the cutter-carrier frame of most sharpeners prevents the pencil from advancing into the cutters once the desired point has been obtained. Some models have point adjusters which permit a choice of standard, semi-blunt or fine pencil points. The adjustment is made by means of a lever located on the cutter-carrier frame. Users of colored pencils, especially, often prefer the semi-blunt point to avoid the ragged breaks that might occur when the sharper points are used. Detailed work and fine lines call for the extremely sharp points.

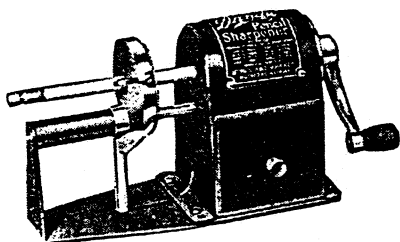


The pencil must fit the opening of the sharpener or it will wobble during the sharpening operation and break the pencil point or produce an off-side cut.

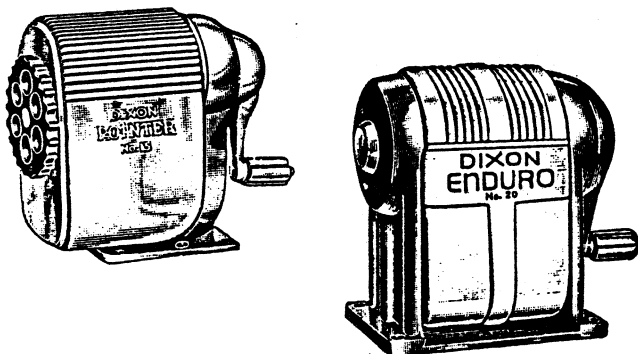
Lower-priced sharpeners have a single opening of a size to fit the standard pencils. They will not accept larger pencils, and will not hold thinner ones securely. Other sharpeners have an opening-selector wheel which can be turned to one of six pencil size choices. This feature provides greater adaptability at a very slight additional cost. The better sharpeners have a spring chuck in the opening that expands to receive the pencil, then holds it firmly while it is being sharpened.



Self-feeder pencil sharpeners have a spring device which feeds the pencil into the machine at a steady rate. The feeder is centered directly opposite the pencil opening, preventing careless and off-center sharpening.



Pencil sharpeners may have single or double pedestals. The double pedestals give more rigid support and assure more accurate alignment of the cutters.



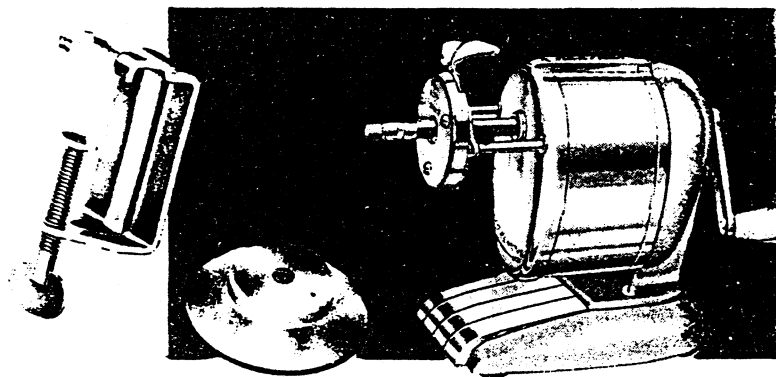
Special pencil sharpeners for draftsmen strip the wood away from the pencil, leaving a long exposed lead. A point is not made on the lead since the draftsmen prefer to make a suitable point with sandpaper or file.



Special cutters which produce a blunt, rounded point are used by elementary schools to avoid any possibility of injury to the children by the sharper points.

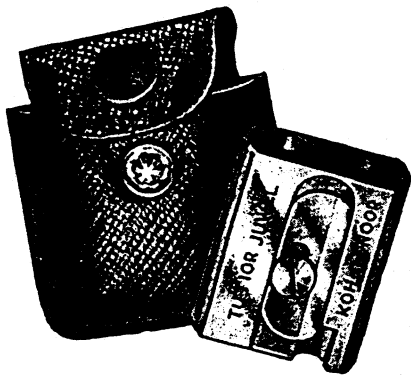


A portable sharpener can be recommended where the owner doesn't want to mar his desk or walls with screws. The portable sharpener can also be put into a drawer, out of sight, when not in use. For rigid fastening in a temporary location, vacuum or screw clamps are available. They are also used by those persons who like desk mounting, but object to the screw holes.



Electrically-driven pencil sharpeners speed up the pointing operation and permit even cutting. There is a tendency in hand sharpening to speed up the handle-turning on the down-stroke and to slow up the turning on the up-stroke. This may cause a rough cut.



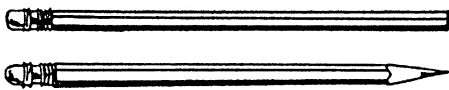


Precision pocket sharpeners are used by draftsmen and those who wish to carry a sharpener with them. They take more time to produce a point, but they allow for a variety of points to suit personal preference. Carrying cases and replacement blades are available. These instruments are not to be confused with the common, school variety of sharpeners.

### Hints for Best Results

Best results from any pencil sharpener will be obtained by encouraging your customers to follow these simple instructions.

1. Install sharpener at convenient height for operators. Best position is at average elbow height. A position too high or too low tends to cause a strain on the pencil.
2. Keep sharpener tightly secured with screws or clamp. A loose machine will wobble and cause breaking of points.
3. Empty shaving receptacle before it becomes half-full. When too full, the shavings are reground with the pencil.
4. Keep moving parts lightly oiled: cutters, cutter shaft, handle knob.
5. Keep handle tight against the frame. A loose handle or worn gear will break points.
6. Clean cutters regularly. A typewriter brush or fine wire brush will remove cakings from the blades to permit clean cutting.
7. Replace dull cutters. Cutters are much less expensive than a new machine; can be replaced easily.



A new pencil, after sharpening, should be the same length as it was before, if a good pencil sharpener is used and if the right amount of pressure is exerted.

### How to Sharpen a Pencil

It probably sounds silly to say that anyone needs instruction on sharpening a pencil. But many a pencil and sharpener gets blamed for off-center points, broken points, and generally poor cutting when the fault really lies in the way the pencil was handled while being sharpened. Here are some pointers you can pass along to your customer.

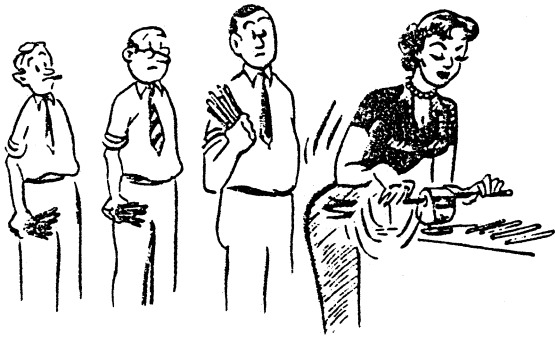
1. Be sure the sharpener is at proper height, securely fastened, handle free from wobble, cutters clean and sharp, and receptacle less than half full. (See why, above.)
2. Hold pencil lightly, about one-half inch from the aperture. Feed lightly into the pencil aperture while turning the handle at a uniform speed.
3. Rotate pencil toward you slowly as you sharpen it to assure an accurately-centered point. This will be opposite to the rotation of the handle.
4. Quit sharpening when pencil reaches the stop (when it no longer feeds freely).
5. If the sharpener has a selection of several opening sizes, select the one that most nearly fits the pencil. Too large an opening will cause the pencil to wobble.
6. For automatic-feed sharpeners, move the chuck full left, open jaws, and insert pencil as far as possible into the aperture without jamming. Release jaws, and rotate the handle. Pencil will stop feeding when the point is produced.

Off-center leads are a common complaint against pencils. In most cases the off-center point comes from improper sharpening or incorrectly-adjusted sharpener cutters. A pencil lead would have to be considerably off center before any appreciable difference in the point could be observed. Holding the pencil too far back or giving too much side pressure because the sharpener is too high or too low will cause the pencil to be pushed unevenly against the cutters, resulting in an off-side cut. Rotating the pencil while sharpening is insurance against off-center points.



## How Many Sharpeners Has an Office?

It takes time to sharpen a pencil, even with the best and fastest-cutting models. The employer pays for the time it takes his employees to walk to the nearest sharpener, sharpen the pencils, and return. He even pays for the time out for gossip along the way. At 2c a minute for the average clerk today, pencil sharpenings can cost money! Installing pencil sharpeners at closer and more convenient positions can result in considerable savings in labor costs.



Some firms figure on one pencil sharpener, centrally located, for every five employees. In engineering organizations hiring high-salaried draftsmen and engineers, each man may have his own sharpener. The saving in time here means real money savings.

## A Pencil Sharpener in Every Home

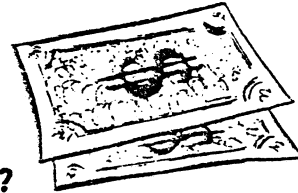
The act of keeping pencils sharp at home would make an excellent comedy sequence in a movie. All too many of the folks at home are still sharpening the pencil with a knife, razor blade, or perhaps the hatchet in the basement. We've all been guilty of even sharpening it with our fingernails at one time or another. Occasionally Junior comes to the rescue with the handy cutter that slips over the end of the pencil. What usually happens, however, is that the broken pencils gradually stack up until someone is appointed to sharpen them all at once. A few bloody fingers and foul words later, the delicately carved and much shorter pencils are ready for use again.

Wise stationers are promoting the pencil sharpener for use in the home, and the moderate price of a good pencil sharpener puts it well within the reach of any family. Its price compares with that of an ordinary butcher knife, and it's much safer!

## Sell the Quality Sharpener

No business office or school can afford to install any sharpener but the ones that give top quality service. The savings of a few dollars on the initial purchase price can soon be compensated for in wasted time, broken pencils, and cutters that dull too soon.

The better quality sharpeners, even by the same manufacturers, provide better bearings, better steel in the cutters, more precision in the working parts, and extra features like point selectors, spring feeds, double pedestals, portability, etc.



## How much is \$2?

It is not difficult to convince your customers that an additional investment of a few dollars for a better quality pencil sharpener means little when compared to the benefits.

Suppose the choice of a quantity of pencil sharpeners has narrowed down to two, one of which is \$2 more than the other. Assuming that you have carefully pointed out the features which justify the difference, how can you minimize the \$2?

Ask him how old his present sharpener is. If he doesn't know, ask if he would expect at least five years of use from a sharpener. We know that sharpeners are kept much longer, but this should be a reasonable figure for any prospect. If he threw away both models of pencil sharpeners at the end of five years, the better sharpener would have cost him 40c more a year, or less than 1c a week! One cent is about equal to 30 seconds of labor cost for one clerk today. Ask the prospect, "Do you think that this better sharpener could save 30 seconds a week through better sharpenings, less re-sharpenings because of point breakage?" If he does agree, then point out that all the other values of longer life, easier operation, and the other features you have already demonstrated, come without charge. If the better machine lasts longer, of course, the difference in total cost is even less!

You must be careful in your discussion of two sharpeners, to word your comparisons in such a way that the prospect does not lose respect for the model of lower price. After all, he may not decide to buy the better one!

I AM THE PENCIL, the first chronicler of new-born thought. I come from the sleeping graphite beds, and the balsamic frills of kingly cedars. In my heart I carry the black carbon of Pluto's world — half-brother to the diamond.

"I memorandum the business of continents, and strike the trial balance in the traffic of nations. I am the hub in the wheel of theory — the keystone in the structure of fact.

"I note the doings of the world in the dizzy hours of the morn while presses wait like couchant beasts to fling my efforts to sleeping millions. I am man's best friend. I am his only confidant.

"I am the major factor in the world's great things, and millions of nervous fingers fondle me every hour. I make the creed of yesterday and the statute of tomorrow, and plan and perpetuate the accomplishments of man. With me the pale-faced scholar summons Grant and Lee and Moltke and Hannibal, and makes their phantom armies shake the world once more.

"I tabulate the passing of kings and, alike, the data from the crucibles of wizard men whose alchemy distills new brews to baffle death. I trace the drunken letters of the child whose dimpled fingers try to ape the art of Spencer. I sketch the song of the eager poet, and trace again the battle march of Alexander.

"I am the democrat, the whittled comrade of the ragged urchin, confidant of the diplomat, bookkeeper of the lonely shepherd upon the mountain side.

"I am the cosmopolitan, known in every mart where money clinks, in every port where commerce spreads her sales, in every town and hamlet where the brain of man connives. I am the pencil and my mission is service."

# QUESTION LIST

## UNIT I, PAGES 3-10

(Numbers in parenthesis indicate reference pages.)

1. *Explain the importance of the wood-cased pencil to today's business.* (3)
2. *Trace briefly, the history of writing instruments to the pencil.* (3)
3. *Why do stationers call the pencil a "bread and butter" line?* (5)
4. *How does the pencil qualify as a barometer of business?* (5)
5. *What are the disadvantages of the pencil being such a staple commodity?* (5)
6. *How can your store increase its pencil profits?* (6)
7. *Where are the most pencil profits for your store, in store sales, or in outside sales?*
8. *How does the quality of pencil handled and the service given on the pencil sale, affect the customers' opinion of the stationer?* (6)
9. *What are the basic steps in selling a pencil?* (6)
10. *In what ways can profitable volume sales be increased?* (6)
11. *How would you explain how a cheap pencil can cost more than a good one through wasted employee time?* (7)
12. *How does better quality in a pencil save time?* (7)
13. *How might a better quality pencil last longer than a poorer one?* (7)
14. *What is your answer to customers who quote the offers given by mail-order pencil companies?* (7)
15. *Do you consider the variety store a competitor in pencil sales? How can you beat their competition?* (8)
16. *Why is it important to sell a pencil properly to industrial accounts?* (8)
17. *What types of pencils would the Executive require? His secretary?* (9)
18. *What types of pencils would be used by the clerical force? The accountants?* (9)
19. *List the types of pencils required by draftsmen and engineers.* (9)
20. *What types of pencils are used in the production departments?* (9)
21. *List the types of pencils used in the sales department. The advertising department.* (9)
22. *What types of pencils are used in the shipping departments?* (9)
23. *What special types of pencils are suitable for home use?* (9)
24. *What types of pencils would you expect to sell to a school system?* (9)
25. *Of what importance is national advertising by pencil manufacturers? How does your store use pencil advertising materials?* (10)

# QUESTION LIST

## UNIT II, PAGES 10-18

(Numbers in parenthesis indicate reference pages.)

1. *Tell how quality graphite is selected and refined. (10)*
2. *How is lead made from the graphite? (11)*
3. *How is pencil wood selected and prepared? (11)*
4. *Describe the finishing processes on a lead pencil. (12)*
5. *How are pencils packed? (12)*
6. *What classification of lead pencil leads in sales? (13)*
7. *What is known as a "jobbing" pencil? (13)*
8. *What are three qualities of a general writing pencil? (13)*
9. *What contributes to smoothness in a pencil lead? (13)*
10. *What factors contribute to strength in a pencil? (13)*
11. *Why will a better quality pencil last longer in equivalent hardness grades? (13)*
12. *What grades of hardness can you offer in a general writing pencil?*
13. *What are uses for the soft lead pencils? The medium? (14)*
14. *When would a firm lead be used? A hard lead? (14)*
15. *What are three influences on a customer's selection of a pencil? (14)*
16. *Explain the influence of the paper on the type of pencil which should be used. (14)*
17. *Why do some firms prefer untipped pencils? Do you quote a different price on tipped and untipped pencils in the same grade? (15)*
18. *Who is the person to see in selling general writing pencils to a business firm? (15)*
20. *What pencil would you choose to be reasonably certain that it was the manufacturer's best quality pencil? (16)*
21. *How has the drawing pencil saved time in the engineering departments? (16)*
22. *Give at least five qualities of a good drawing pencil. (16)*
23. *Which grades of lead in a drawing pencil would you recommend for use in making a heavy, black mark? (17)*
24. *What grade of lead in the drawing pencil compares with the No. 2 writing pencil? (17)*
25. *Who is the person to see in selling drawing pencils to a firm? (18)*

# QUESTION LIST

## UNIT IV, PAGES 27-34

(Numbers in parenthesis indicate reference pages.)

1. Describe briefly, the process of making erasers. (27)
2. How does the eraser do its work? (27)
3. Explain the difference in erasing action between an eraser with firm rubber and one with softer rubber. (27)
4. How does age affect rubber? What does the manufacturer do to increase an eraser's life? (27)
5. What are the four primary types of erasers? (27)
6. What type of eraser, soft or firm, is recommended for soft lead marks? For imbedded pencil marks? (27)
7. Why do draftsmen prefer a firm pencil-type eraser to remove ink marks? (28)
8. How does an ink eraser differ from a pencil eraser? (28)
9. When would you recommend a combination ink and pencil eraser? (28)
10. What types of workers use electric erasing machines? (28)
11. When would you recommend a typewriter eraser with a soft compound and a coarse abrasive? (28)
12. When would you recommend a typewriter eraser with a firm compound and a fine abrasive? (28)
13. How does a brush on a typewriter eraser protect the typewriter mechanism? (29)
14. Of what use is the eraser cleaner? The gum cleaner? (29)
15. In what type of work is the kneadable eraser used? (29)
16. Describe the type of protection required for an eraser display. (29)
17. What effect can a worn pencil sharpener have on the sale of pencils to a firm? (30)
18. Explain the operation of the typical pencil sharpener you sell.
19. For what types of work would you recommend a fine pencil point? A semi-blunt pencil point? (30)
20. Why do schools buy special blunt-point sharpeners for the lower grades? (31)
21. Explain the purpose and action of the draftsman pencil sharpener. (31)
22. Why is a double-pedestal sharpener preferred over a single-pedestal sharpener? (31)
23. Give at least five instructions for getting the best use out of a pencil sharpener. (32)
24. How would you recommend that a customer sharpen his pencil for best results? (32)
25. How would you minimize the difference of \$2 between a standard and a better grade of pencil sharpener? (33)

# QUESTION LIST

## UNIT III, PAGES 19-26

(Numbers in parenthesis indicate reference pages.)

1. *How are colored pencils used in the business office?* (19)
2. *How can color be used in coding charts and notations?* (19)
3. *How do soluble and insoluble colored pencils differ?* (19)
4. *When would you recommend a soluble pencil? An insoluble pencil?* (19)
5. *How do thick and thin-lead colored pencils differ?* (19)
6. *Explain how the soluble pencil is used in making water colors.* (20)
7. *What is meant by a "paper-wrapped" pencil? How does it work?* (20)
8. *Give at least five qualities of a good colored pencil.* (20)
9. *For what purpose is the regular copying pencil used?* (21)
10. *For what purpose is the intense copying pencil used?* (21)
11. *How does the white correction pencil work?* (21)
12. *Why do schools use thick lead pencils?* (22)
13. *Give five types of customers on your list who would have use for a thick-lead pencil.*
14. *What is the purpose of the manifolding pencil?* (23)
15. *What colors can you offer in blueprint pencils?*
16. *How is an ink pencil different from a regular copying pencil?* (23)
17. *Describe a special shorthand pencil.* (24)
18. *Give at least five uses for a china-marking pencil.* (24)
19. *What colors can you offer in a china-marking pencil?*
20. *When would you recommend the use of a moisture-resistant pencil?* (25)
21. *What is a conductive or mark-sense pencil? How is it used?* (25)
22. *Who uses the charcoal pencil?* (25)
23. *How is a textile pencil different from other types of pencils?* (25)
24. *Describe an election pencil.* (26)
25. *How is a scoring pencil different from a standard pencil?* (26)